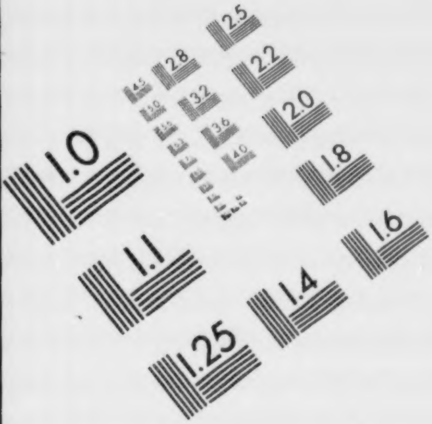

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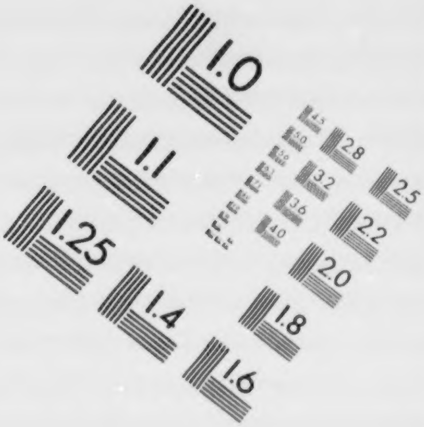

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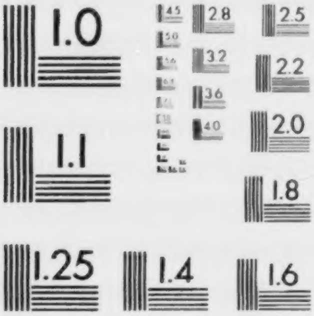

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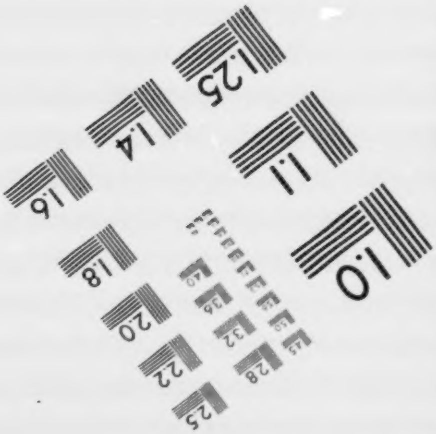

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ABSTRACT

This volume of the journal for the California Association of School Psychologists provides current information on a broad array of topics related to the work of school psychologists. Articles in this volume provide information addressing an assortment of important issues in the field, including: the translations and validation of an assessment for use with Spanish-speaking students; applied research examining family-centered practices in an ethnically diverse elementary school; consultation, collaboration, and support for new teachers; a longitudinal study of the association between grade retention and school dropout; a synthesis of best practices in assessing kindergarten readiness; and the use of a formative program portfolio process to enhance graduate school psychology training. Articles in this issue include: (1) "The "California School Psychologist" as a Quintessential Resource" (Shane R. Jimerson); (2) "Using the DAS Nonverbal Scales with Spanish Speaking Children: Translation and Validation" (Jonathan Sandoval; Malu Antunez-Bellatin; Sharon Lewis); (3) "An Applied Research Study of Family-Centered Practice sin an Ethnically Diverse Elementary School" (Bonnie S. Ho; Susan J. Robinette; Rachael Gonzales); (4) "Consultation in New Teacher Groups: School Psychologists Facilitating Collaboration among New Teachers" (Steven E. Knotek; Leslie M. Babinski; Dwight L. Rogers); (5) "Exploring the Association between Grade Retention and Dropout: A Longitudinal Study Examining Socio-Emotional, Behavioral, and Achievement Characteristics of Retained Students" (Shane R. Jimerson; Phillip Ferguson; Angela D, Whipple; Gabrielle E. Anderson; Michael J. Dalton); (6) "Best Practices in Assessing Kindergarten Readiness" (Renee Pavelski Pyle); and (7) "Using a Formative Program Portfolio to Enhance Graduate School Psychology Programs" (Michael Hass; Jan Osborn). (Contains 208 references.) (GCP)

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Volume 7

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The California School Psychologist as a Quintessential Resource

Shane R. Jimerson
University of California, Santa Barbara

The California School Psychologist is a quintessential resource, providing valuable information to promote the academic success and facilitate the developmental trajectories of diverse students. Articles published in *The California School Psychologist* enhance knowledge, science, and practice related to school psychology. Each year over 3,000 volumes of *The California School Psychologist* journal are distributed directly to school psychologists and other educational professionals. In addition, many professionals seek out manuscripts published in *The California School Psychologist* upon revealing articles of interest in searches of international electronic literature databases (e.g., *ERIC*, developed by the US Department of Education and *PsycINFO*, developed by the American Psychological Association). Other professionals access the contents of *The California School Psychologist* on the internet at www.education.ucsb.edu/school-psychology. Thus, educational professionals throughout the state, across the country, and around the world utilize information published in *The California School Psychologist*.

Articles in this volume provide valuable information addressing an assortment of important issues in the field, including: the translation and validation of four nonverbal subtests of the *Differential Abilities Scales* (DAS) for use with Spanish-speaking students; applied research examining family-centered practices in an ethnically diverse elementary school; consultation, collaboration, and support for new teachers; a longitudinal study providing further insights regarding the association between grade retention and school dropout; a synthesis of best practices in assessing kindergarten readiness; and the use of a formative program portfolio process to enhance graduate school psychology training. The following highlights from each article provide an overview of the topics addressed in this volume.

The first article (Sandoval, Antunez-Bellatin, & Lewis, 2002) provides a summary of the translation and validation of the (DAS) nonverbal scales for use with Spanish-speaking children. The exigency of appropriate assessments of cognitive skills for Spanish-speaking children is increasing as the number of individuals of Latino descent has grown by sixty percent nationally. Moreover, in states such as California and Texas, Latino youth are emerging as the majority, having grown sixteen percent faster than any other group during the past decade. This article begins by describing procedures that may be used to translate directions of a test from one language to another. This study included administration of the Spanish translation version of the four nonverbal DAS subtests to a referred population of 97 Spanish-speaking children. In addition, students were assessed with the *Test of Nonverbal Intelligence* (TONI), the *Comprehensive Test of Nonverbal Intelligence* (CTONI), and the *Woodcock-Munoz Language Survey*. The analyses yielded preliminary evidence of internal validity, concurrent validity, and construct validity. The authors suggest that the Spanish translation of the DAS nonverbal subtests may provide a more standard administration of this assessment to Spanish-speaking students. Finally, the authors encourage further research exploring the Spanish translation of the DAS nonverbal subtests.

The second article (Ho, Robinette, & Gonzales, 2002) examines family-centered practices in an ethnically diverse elementary school. Considering the current context of education policies advocating family-centered practices, this applied research study explored families' and educators' perceptions of family-centered practices. This study included twelve educational professionals and 129 families who completed surveys examining "typical" and "ideal" family-centered practices. Exploratory factor analyses yielded three main factors: Positive Relating with Families, Partnering with Families, and Family-Focused Approaches. Moreover, analyses indicated no significant differences between families and educators for either "typical" or "ideal" ratings of family-centered practices, with both desiring a higher level of family-centered practices. While single-parent families rated family-centered practices lower than two-parent families, there were no differences among families by ethnicity or home language. This article emphasizes the importance of linkages between family support systems, acceptance of family differences, and the identification and use of strengths in families to facilitate the success of children at school. The authors encourage school psychologists to provide leadership in promoting family-centered practices in schools.

The third article (Knotek, Babinksi, & Rogers, 2002) highlights elements of a teacher induction program, emphasizing mentoring, reflective practice, and collaboration. This qualitative study examined how the process of consultee-centered case consultation (CCC) facilitated collaboration, problem-solving, and professional development in a new teacher group (NTG). It was found that participants of the new teacher group benefited in terms of more positive self-perception and an enhanced approach to problem solving. Amidst the context of teacher shortages in many states, many districts are receptive to innovative proposals that will contribute to professional development and support teacher retention. School psychologists can offer developing professionals a supportive, dynamic forum in which teachers are encouraged to reflect on their practices, to explore problems and solutions, and are supported to continue their professional development and meet the needs of children. In addition, through the process of engaging new teachers in a positive consultation experience during the formation of their careers, school psychologists have the opportunity to broaden their base of peers who value and make use of indirect services.

The fourth article (Jimerson, Ferguson, Whipple, Anderson, & Dalton, 2002) provides further information regarding the association between grade retention and high school dropout. This prospective longitudinal study examines within-group differences, exploring the characteristics of those students who are retained and subsequently drop out as compared to those students who are retained and do not drop out. The authors invoke a transactional-ecological developmental framework to assist interpretation of the findings within the context of long-term outcomes across development. Results reported in this study indicated that there are early socio-emotional and behavioral characteristics that distinguish those retained students who are most likely to drop out of high school. Furthermore, maternal level of education and academic achievement in the secondary grades were also associated with high school graduation status. The authors suggest that it is especially important to attend to the socio-emotional and behavioral adjustment of children throughout their schooling to facilitate both immediate and long-term academic success.

The fifth article (Pyle, 2002) explores best practices in examining kindergarten readiness. Emphasizing the first national educational goal, "All children in America will start school ready to learn," this article addresses related challenges and delineates important considerations and strategies in assessing kindergarten readiness. This article reviews the history, related research, and methodological concerns in examining definitional and measurement aspects of screening instruments for school readiness. The author also includes a discussion of important psychometric properties such as: predictive validity, sensitivity and specificity, reliability, test floor, and item gradient. Based on a review of extant literature, four suggestions are offered to enhance readiness screening assessment: (a) define the purpose of the assessment, (b) select ecologically focused instruments with multiple raters and follow-up procedures, (c) determine the process for conducting the assessment, and (d) think carefully about how to analyze, interpret, and use the results.

The sixth article (Hass & Osborn, 2002) examines the implementation of a formative program portfolio in a graduate program in school psychology. The portfolio process described in this article emphasizes Donald Schön's work regarding the reflective practitioner and the notion that professional knowledge and practice is enhanced by making what is tacit, implicit. The article includes: a description of the connections with training standards, program course work, exit interview questions, and student reflections on the portfolio process. The program portfolio described in this article incorporates the training standards established by the National Association of School Psychologists (NASP). The authors report that the portfolio process has served to strengthen the graduate program and contributes to developing students' higher level thinking skills and critical evaluation. The authors also propose that the portfolio process has benefits beyond graduate training and could be valuable for those already in the field.

Considering the scope of professional preparation in school psychology (e.g., child development, learning theory, psychology, prevention and intervention program planning and evaluation, consultation and collaboration, assessment, socio-emotional development, sociocultural considerations, professional leadership, human relations, school safety and violence prevention, wellness promotion, crisis intervention, counseling, family-school collaboration, research, measurement, technology, educational law, professional ethics, supervision, and mentoring), school psychologists are invaluable in promoting the social and cognitive competence of students. As reflected by the series of articles in this volume emphasizing a breadth of knowledge, (i.e., the assessment of diverse students, family-centered practices at school, consultation and collaboration with new teachers, the association between early grade retention and subsequent outcomes, assessment of kindergarten readiness, and using formative portfolio assessment to enhance the preparation of school psychologists) *The California School Psychologist* is a quintessential resource in facilitating the education and development of children.

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Using the DAS Nonverbal Scales with Spanish-Speaking Children: Translation and Validation

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This paper describes the procedures that can be used by school professionals to translate the directions of a test from one language (English) to another (Spanish). The procedures were then applied to the translation of four nonverbal Differential Ability Scale subtests into Spanish. The translation of these directions is provided in an appendix. The performance of a referred population of 97 Spanish-speaking children, who were given the translated directions, mirrors that of children in the DAS standardization sample. Evidence from internal validity coefficients, concurrent validity coefficients, and construct validity suggests that the DAS nonverbal subtests can be translated and yield information comparable to non-translation. The translation provided makes possible a more standard administration of this test to Spanish-speaking children.

Keywords: Differential Ability Scales, DAS, Spanish, Translation, Validation

Perhaps the first option that comes to mind to psychologists as well as others (such as the courts) when faced with a non- or limited-English proficient speaker is to have the test of interest translated into the language of the test taker. Translating tests in situ or beforehand by a bilingual psychologist and especially the use of a non-psychologist translator in testing are fraught with hazards and issues. Translating a test from one language to another, and at the same time preserving the content, difficulty level, reliability, and validity is a daunting undertaking. It is rarely done successfully at the local level, because word frequencies (difficulties) and verbal concepts are difficult to match across languages. This difficulty is particularly acute with respect to the verbal content of the test for several reasons: (a) word frequency, difficulty and meaning are seldom exactly the same across languages; (b) language is a part of a culture and concepts have cultural nuances; (c) there are likely to be social class differences in those who do the translation and those who take the test; (d) information may be lost because of nonverbal communication and context in the original; and (e) content and tasks may have different levels of practice and exposure. Because of these problems, it is best not to translate verbal tests at the local district level.

With nonverbal content, translation must alter the directions given the child. It is much easier to translate instructions and procedures than it is to translate test items or questions. However, this task also should not be undertaken lightly for some of the reasons mentioned above. In addition, once a translation has been produced it still must be examined for reliability and validity.

In assessing the intellectual functioning of English Proficient children, the authors have been impressed with the utility of the Differential Abilities Scales (DAS; Elliott, 1990a). This test yields

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useful information about children, who find it engaging and not too taxing, and the results have helped us to plan successful interventions for children. It has construct validity across Hispanic, Black, and White children (Keith, Quirk, Schartzer, & Elliott, 1999). In addition, the DAS author (Elliott, 1990a, p. 36) suggests that the Special Nonverbal Composite (SNC) scale may be used with children who are not proficient in English speaking. Riccio, Ross, Boan, Jemison, and Houston (1997) found that the SNC scores obtained by 10 children ages 3 to 6, who had English as a second language or were limited English proficient, were comparable with a comparison group of children who had English as their primary language. The authors do not indicate if the test was translated.

The Nonverbal Scale is made up of four subtests that use a minimum of verbal directions and employ symbolic stimuli. *Recall of Designs* requires a child to draw a non-pictorial line drawing from memory. *Pattern Construction* is a block design, visual pattern test. *Sequential and Quantitative Reasoning* requires a child to identify the missing part of a series of figures or numbers. *Matrices* involves supplying the missing element from a pattern displayed in a matrix. Although Elliott recommends the use of these four subtests with non-English-speaking children, he only states that the instructions can be communicated in the child's primary language or by gesture. No translations of the directions to the nonverbal subtests have been provided in the manual or elsewhere. Given the absence of published non-English directions for the DAS Nonverbal subtests, there is a need for other language directions to create a standardized administration. Spanish directions are a priority because this language is so common in U.S. and California schools.

Prior to beginning a translation, best practices should be considered. Geisinger (1994) provides a step-by-step approach that can be used in translating test directions:

1. *First the directions must be translated and adapted to the new language.* In some instances, this can be done more or less in a word-by-word or sentence-by-sentence fashion, but in others the concepts are translated on a conceptual level. The usual approach is to use back translation. In back translation, first one translator converts the information into the target language, and then a second independently translates the information back into English. Both translators must be fluent in both English and in the target language. Judges next compare the version translated back to the original. This process can be repeated to insure accuracy. It is best that the translators be unaware that their translation will be subject to back translation. If they are unaware of the reason for the translation, they will be less likely to choose wording that will back translate than to choose words that will capture best the meaning of the original. A flaw in the back translation process is that there may be too much emphasis on having the original language returned by the second translator so that a stilted and non-optimal translation may emerge.

2. *Next, a panel of expert bilingual and bicultural individuals serving as a focus group reviews the new version of the translated or adapted directions.* Geisinger (1994) suggests that the panel members, "(a) review the items and react in writing, (b) share their comments with one another, and (c) meet to consider the points made by each other and to reconcile any differences of opinion" (p. 306).

3. *After the panel has deliberated without the original translator present, the translator further adapts the draft instructions on the basis of the reviewers' comments.*

4. *In the next step, the directions are given a pilot trial with a small group of typical examinees.* Afterward, the test takers are interviewed to determine if they understood the instructions. The translation should be modified in response to the findings from these interviews.

5. *At this point, the translated directions are ready for a field test.* It should be administered to a large enough representative sample to yield data to examine issues related to the reliability and validity of the test.

Adapting a set of directions for a standardized test is a serious undertaking. The purpose of this study was to create a Spanish translation of the directions to the DAS Nonverbal scale subtest, and to collect data concerning the validity of this translation. We sought to learn if referred children tested with this translation show the same patterns of scoring and correlations with other tests as did the children in the standardization sample.

METHOD

Participants

Professionals. Twelve credentialed professionals, nine school psychologists and three speech and language specialists, participated in the initial translation of the directions into Spanish. All were native language speakers or competent second-language speakers with extensive experience assessing Spanish-speaking children. Four different non-psychologist professional translators, experienced and skilled in both Spanish-to-English and English-to-Spanish interpretation, completed the back translations into English. The original 12 professionals worked as a group to resolve any wording issues, to try out the translations with children to determine their comprehension, and to produce the final Spanish translation.

Children. For the validation phase of the study, 97 children were assessed. Their language competence was determined by the *Language Assessment Scales* (DeAvila & Duncan, 1990). The results indicated that all were primarily Spanish speakers with Spanish as the language spoken in the home. Their ages ranged from 6 years, 0 months to 14 years, 4 months with a median of 8 years, 8 months. Fifty-three of the children were tested as an initial special education referral, 20 of the children were referred for language screening, 10 were volunteered by their parents, four were reevaluated for placement in special education, five were referred for testing as potential participants in the Gifted And Talented Education program, and five were general referrals for screening. The children came from four moderately sized suburban/rural school districts in the Sacramento/San Joaquin Valley of Northern California.

Measures

The DAS is an American adaptation of the *British Abilities Scales* (Elliott, 1990a). The Matrices and Sequential and Quantitative Reasoning subtests together yield a cluster score Nonverbal Reasoning Ability. The Recall of Designs and Pattern Construction subtests yield a cluster score Spatial Ability. All four tests together yield a Special Nonverbal Composite.

Two commonly used nonverbal tests were used to cross-validate the Spanish translation. The *Test of Nonverbal Intelligence* (TONI) is a language-free test using abstract symbols and figures yielding a single score (Brown, Sherbenou, & Johnsen, 1997). The *Comprehensive Test of Nonverbal Intelligence* (CTONI) contains six subtests (Pictorial Analogies, Geometric Analogies, Pictorial Categories, Geometric Categories, Pictorial Sequences, and Geometric Sequences), which are combined to yield an overall Nonverbal Intelligence Quotient (Hammill, Pearson, & Wiederholt, 1997).

The *Woodcock-Munoz Language Survey* is a screening instrument used to establish an individual's language proficiency in English and Spanish (Woodcock & Muñoz-Sandoval, 2001). It contains measures of Oral Language (two tests: Picture Vocabulary and Verbal Analogies), reading and writing. Parallel tests are available in Spanish and in English. For this study, the English and Spanish Oral Language tests were administered.

Procedure

The directions to the four DAS subtests were translated in accordance to the strategy outlined by Geisinger. The second and third authors initially translated the directions into Spanish, the second author's first language and a second language for the third author. This translation was discussed and modified by nine other professional colleagues. When a consensus translation was achieved, four fully Spanish-English bilingual non-psychologists back-translated the directions into English. After verifying the accuracy of the translation (Step 1), the translation was offered to the group of Spanish bilingual school psychologists and speech therapists, who, serving as a focus group, examined the back translation and revised the Spanish translation (Step 2). The results of the focus group feedback suggested only minor changes, which were made by the second and third authors (Step 3). The resulting translation was piloted with the next three referrals to the authors and found to be comprehensible (Step 4). Finally the directions were field tested with the next 97 children Spanish speaking children referred to the second and third authors (Step 5).

RESULTS

Translation

The appendix contains the resulting final Spanish translation. The English directions may be found in the DAS administration manual.

Validation

Table 1 lists the mean and standard deviation of the DAS scores for the total sample and for four subsamples of referred children. The means on the tests and composite scores for the total group are about one-half to two-thirds of a standard deviation below the DAS norm group average. Disaggregating the children by reason for referral, the special education referrals and the language referrals scored about two-thirds of a standard deviation below the mean, but the gifted referrals were one and a half standard deviations above the mean, and the volunteers were above average.

Table 2 presents the intercorrelations of the four DAS tests and their correlations with the TONI and CTONI. Intercorrelations from the DAS manual Table 9.3 are included in brackets (Elliott, 1990b). The obtained intercorrelations in Table 2 are very close to those reported in the DAS manual in three of the cases, are within .10 points in two cases, and higher in one case. The DAS score with the highest correlation with other tests is the Matrices test, which correlates most highly with the CTONI total score. All of the tests correlate significantly with the TONI. Two of the DAS subtests, Recall of Designs and Sequential and Quantitative Reasoning, do not correlate significantly with the CTONI total.

Table 3 contains the correlations between the DAS composite scores and the TONI and CTONI. The correlations are significant but are slightly below the correlations of the DAS scores and the WISC-R Performance IQ scores reported in the DAS technical manual. The correlations of the Special Nonverbal Composite with the TONI and CTONI are .60 compared to a correlation of .71 reported for the WISC-R (Table 9.26 DAS technical manual).

The DAS composite intercorrelations are almost identical to those reported in the DAS Technical manual. For this sample of special education referred Spanish-speaking children, the DAS scores obtained using the created Spanish directions appear to perform the same way as they did in the standardization sample.

The data displayed in Table 4 show the correlations between the DAS composites and four scores from the Woodcock-Munoz battery: English Oral Language, Spanish Oral Language, Spanish Picture

Table 1

Mean and Standard Deviation for the Total Group and for Four Types of Referrals.

	Total Sample		Initial Referral		Gifted Referrals		Volunteer		Language Screening	
	n = 97		*n* = 53		*n* = 5		*n* = 10		*n* =20	
DAS Score	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Recall of Designs	44.35	12.27	41.74	11.67	67.80	11.95	56.20	5.79	42.05	6.59
Sequential Quantitative Reasoning	45.53	11.18	42.51	6.98	61.20	7.26	59.80	17.91	43.75	9.74
Matrices	48.15	9.02	45.55	8.25	66.60	10.21	54.10	4.72	49.80	4.06
Pattern Construction	48.23	10.10	47.55	10.66	55.80	5.54	52.80	9.54	47.85	8.44
Non-Verbal Reasoning	94.01	15.29	89.47	10.84	123.00	13.78	111.60	17.35	93.75	10.71
Spatial Reasoning	93.29	16.19	90.25	16.22	120.20	13.83	106.90	8.58	90.55	9.89
Nonverbal Composite	93.18	15.69	89.08	13.51	124.20	15.99	109.90	10.82	91.70	9.06

Vocabulary (Vocabulario sobre dibujos) and Spanish Verbal Analogies (Anologias verbales). All of the correlations are significant. There is a moderate correlation with language skills in both languages, but a relatively small correlation with Spanish picture vocabulary. The strong correlation with Verbal Analogies, the most cognitive of the Spanish language tests, provides evidence for concurrent validity of the Special Nonverbal Composite obtained with the translated directions.

DISCUSSION

Following Geisinger's (1994) procedures for test translation, we produced a Spanish set of directions for the DAS nonverbal tests. The procedure, albeit time consuming, resulted in a translation that a group of professionals found to be accurate and easily understood by children.

Evidence for the differential group validity of the translated test directions is the differential and expected performance of various groups of referred children. Although only a small number of children, those thought potentially gifted performed well on the test. A larger number of children referred for special education by their teachers performed below average on the DAS tests and composites.

Table 2
Intercorrelation of DAS Tests and Correlation of DAS Tests with TONI and CTONI.

	Pattern Construction	Recall of Designs	Matrices	Sequential & Quantitative Reasoning
Recall of Designs ($n = 97$)	.47 [.57]			
Matrices ($n = 97$)	.54 [.53]	.65 [.44]		
Sequential & Quantitative Reasoning ($n = 97$)	.44 [.54]	.44 [.44]	.58 [.58]	
TONI ($n = 60$)	.47	.43	.59	.52
CTONI ($n = 34$)	.55	.28	.71	.24

Note. All correlations significant beyond $p < .01$ except those for CTONI and Recall of Designs and Sequential and Quantitative Reasoning. Intercorrelations from the DAS manual Table 9.3 are included in brackets.

TONI = *Test of Nonverbal Intelligence*
CTONI = *Comprehensive Test of Nonverbal Intelligence*

Table 3

DAS Cluster Scores Correlations with the TONI and CTONI and Cluster Score Intercorrelations.

	TONI	CTONI	Spatial Reasoning	Special Nonverbal
Composite Nonverbal Reasoning	.61 (*n* = 60)	.52 (*n* = 34)	.66 [.61] (*n* = 97)	.91 [.90] (*n* = 97)
Spatial Reasoning	.52 (*n* = 60)	.50 (*n* = 34)	——	.91 [.90] (*n* = 97)
Special Nonverbal Composite	.61 (*n* = 60)	.59 (*n* = 34)	——	——

Note. All correlations significant beyond $p < .01$. Intercorrelations from the DAS technical manual Table 9.3 are included in brackets.

TONI = *Test of Nonverbal Intelligence*
CTONI = *Comprehensive Test of Nonverbal Intelligence*

Table 4

DAS Scores and Oral Language Measures, Picture Vocabulary and Verbal Analogies from Woodcock-Muñoz Language Survey.

	Nonverbal Reasoning	Spatial Reasoning	Special Nonverbal Composite
English Oral Language	.55** (*n* = 73)	.51** (*n* = 73)	.56** (*n* = 73)
Spanish Oral Language	.45** (*n* = 79)	.45** (*n* = 79)	.48** (*n* = 79)
Spanish Picture Vocabulary	.24* (*n* = 76)	.32** (*n* = 76)	.30** (*n* = 76)
Spanish Verbal Analogies	.62** (*n* = 76)	.64** (*n* = 76)	.68** (*n* = 76)

Note. ** $p < .01$, * $p < .05$)

Evidence of the concurrent validity is the expected correlation of the tests and composites with other tests of mental ability, both other nonverbal tests and a Spanish language test. Evidence for the internal validity of the test is the same degree of intercorrelation in this sample as in the standardization sample. The DAS nonverbal tests, using Spanish directions, appear to yield scores that correlate with other measures the same way as the tests do using English directions. We believe this Spanish translation shows promise and permits the nonverbal tests of the DAS to be used in a standardized fashion with Spanish-speaking children.

For school psychologists who use the DAS Spanish directions, it may be useful to give instructions in both languages spoken by the examinee. This practice will give the examinee an optimal chance to understand what is expected. This option will be particularly valid for children who are English learners and are used to such procedures in bilingual classrooms. Strictly speaking, a dual language version of a test should also be standardized and normed with bilingual and monolingual populations. Increasingly this is being done with bilinguals included in the norm sample, as was done with the Woodcock-Johnson III.

It would also be useful to examine item performance data to establish that the test items perform the same way with this Spanish-speaking sample as with the standardization sample. This examination of test fairness was beyond the scope of this study, but is a logical next step. This study is limited because the children studied were a referred population, and thus not representative of the entire range of abilities. Nevertheless the results thus far suggest that this translation may standardize administration of the DAS SNC for Spanish-speaking children.

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Appendix

Spanish Translation of the four DAS subtests making up the Special Nonverbal Composite

Memoria de Dibujos

Materiales:

Booklet 1

Lápiz con borrador

Hojas de papel en blanco de aproximadamente 4 por 5 pulgadas

Cronómetro

Comienzo: Todas las edades

Ejemplo A

Señale el dibujo y diga:

Aquí hay un dibujo. Míralo con atención y trata de recordarlo.

Comience a tomar tiempo. Pasados 5 segundos, retire el estímulo, señale la hoja de respuestas y diga:

Ahora dibújalo aquí. Hazlo igual al que acabas de ver.

Cuando el niño complete el dibujo, abra el libro en el ejemplo A. Coloque el dibujo estímulo junto al dibujo del niño y diga:

Veamos cuán bien lo haz dibujado.

Ejemplos B y C

Retire la hoja de respuesta del item anterior y dé una nueva hoja de papel al niño diciendo:

Ahora mira el siguiente dibujo. Míralo con atención y trata de recordarlo.

Presente el siguiente dibujo-estímulo por 5 segundos. Retire el estímulo y señalando la hoja de respuesta diga:

Ahora dibújalo aquí.

Cuando el niño complete su dibujo, coloque el dibujo-estímulo junto al dibujo del niño y compárelos, como en el ejemplo A. Haga comentarios sólo en los ejemplos A, B y C. No haga ningún comentario en los siguientes dibujos.

Itemes 1 – 21

Itemes 1-21 se administran todos de la misma manera. Para cada uno, coloque primero la hoja de respuesta numerada delante del niño y diga:

Ahora mira éste.

Muestre el item por 5 segundos, retire el estímulo y diga al niño:

Ahora dibújalo aquí.

(1) Punto de Decisión – edades: 5.0 - 7.11 (después de administrar item 12)

(2) Punto de Decisión – edades: 8.0 – 11.11 (después de administrar item 16)

(3) Punto de Decisión - edades: 12.0 – 17.11 (después de administrar item 21)

Si el niño falla en Itemes 16-17 (ó 24-25) (ó en item 31), instrúyalo enseñándole como en el ejemplo E. En estos itemes, reconozca las respuestas correctas del niño.

(4) Punto de Decisión – edades: 7.0 – 10.11 (después de administrar item 23)

(5) Punto de Decisión – edades: 11.0 – 14.11 (después de administrar item 30)

(6) Punto de Decisión - edades: 15.0 – 17.11 (después de administrar item 39)

Construcción de Patrones

Materiales:

Set A (Itemes 1–7)

Seis cuadrados de caucho esponjoso de color amarillo-y-negro

Booklet 2

Set B (Itemes 8-23)

Nueve bloques deplástico de color amarillo-y-negro

Cronómetro

Como tomar el tiempo

(1) Comience a tomar el tiempo inmediatamente después de dar las instrucciones. Anote el tiempo que el niño demora en completar el patrón.

(2) El tomar el tiempo de las respuestas no se le explica al niño hasta el item 8. Si el Niño pregunta sobre el cronómetro antes del item 8, diga:

Te voy a tomar el tiempo con este reloj, pero trabaja con cuidado y trata de hacer bien estos patrones.

Comienzo: Edades 3.0-6.11

Ejemplo A

Modelo

Segundo Ensayo

Tiempo Límite: Aproximadamente 30 segundos por ensayo

Coloque dos cuadrados frente al niño, uno con el lado amarillo y el otro con el lado negro hacia arriba. Tome dos cuadrados para su propio uso y diga:

Cada una de estas piezas tiene un lado amarillo y un lado negro. Mira tus piezas por los dos lados.

Haga una pausa mientras el niño y usted voltean sus piezas. Luego diga:

Las podemos poner juntas para formar un patrón. Mírame ponerlas juntas.

Haga un modelo con sus piezas, con el cuadrado negro a la izquierda del niño y el cuadrado amarillo a la derecha del niño. Deje el modelo delante del niño y diga:

Ahora pon tus piezas juntas, para que se vean exáctamente como las mías.

Segundo Ensayo: Si la respuesta del niño es incorrecta, o el niño no completa el patrón en 30 segundos, siga el procedimiento del 2do. Ensayo: Señale el error. Haga una demostración y diga:

Trata de nuevo.

Item 1

Modelo y figura

Segundo Ensayo

Tiempo Límite: Aproximadamente 30 segundos por ensayo

Retire los cuadrados del niño y el modelo del Ejemplo A. Abra el Booklet 2 en el Item 1 y diga:

Ahora vamos a hacer el patrón que está en esta figura. Mira.

Use dos cuadrados para hacer el modelo del Item 1 junto a la figura. Dejando el modelo y la figura delante del niño diga:

Ahora tu haz el mismo patrón con tus piezas.

Segundo Ensayo: (Si es necesario) Señale el error. Haga una demostración. Diga:

Trata de nuevo.

Dé 3 puntos para un patrón correcto en el primer ensayo, 1 punto para un patrón correcto en el segundo ensayo, y 0 puntos si el niño responde de otro modo.

Ejemplo B

Figura

Segundo Ensayo

Tiempo Límite: aproximadamente 30 segundos por ensayo.

Desarme el modelo del Item 1 y ponga los cuadrados a un lado. Mexcle los cuadrados del niño. Prepare su cronómetro. Pase al Ejemplo B y diga:

Ahora trata de hacer éste. Comienza.

Comience a tomar tiempo.

Segundo Ensayo: (si es necesario) Señale el error. Demuestre.

Trata de nuevo.

Item 2

Figura y Demostración

Segundo Ensayo

Tiempo Límite: aproximadamente 30 segundos por ensayo.

Mezcle los cuadrados del ejemplo B y dé al niño 2 cuadrados más (un total de cuatro cuadrados).

Pase al Item 2 y diga:

Este patrón es mas grande. Mírame.

Usando los cuadrados del niño, haga una demostración del patrón. Señale la figura y los cuadrados y diga:

Ves? Son iguales.

Mezcle los cuadrados del niño y señalando la figura diga:

Ahora pon tus piezas juntas para que se vean igual que éste.

Comience a tomar el tiempo. Si el niño no usa todas las piezas diga:

Usa todas las piezas.

Segundo Ensayo: (si es necesario) Señale el error. Demuestre.

Trata de nuevo.

Item 3

Figura

Tiempo Límite: 45 segundos

Ahora trata de hacer éste.

Comience a tomar el tiempo

Item 4

Figura y Demostración

Segundo Ensayo

Tiempo Límite: 45 segundos por ensayo.

Dé al niño dos cuadrados más (un total de 6). Pase al Item 4, señale el patrón y diga:

Ahora vamos a usar todas estas piezass para hacer este patrón. Mírame.

Construya el patrón usando los cuadrados del niño. Luego mezcle los cuadrados y diga:

Ahora trata tú.

Comience a tomar el tiempo.

Segundo Ensayo: (si es necesario) Señale el error. Demuestre.

Trata de nuevo.

Itemes 5 – 7

Figura

Tiempo Límite: 60 segundos por item.

Mezcle los cuadrados del niño, pase a la página correspondiente y diga:

Ahora trata de hacer éste.

Comience a tomar el tiempo.

Después del item 7, retire los cuadrados y el Booklet 2.

(7) Punto de Decisión – Edades 3.0-4.11 (después de administrar el item 7)

Ejemplo C

Modelo y Figura

Segundo Ensayo

Tiempo Límite: 30 segundos por ensayo.

Tenga listos el Booklet 1 y cuatro bloques de plástico. Coloque dos bloques delante del niño y diga:

Mira estos bloques. Tienen diferentes lados.

Voltee los bloques para mostrar los diferentes lados. Diga:

Mira tus bloques por todos los lados. Todos los bloques son iguales. Los podemos poner juntos de modo que las partes de arriba formen este patrón.

Abra el Booklet 1 en el Ejemplo C y diga:

Mira como lo hago.

Construya el modelo al lado del Booklet 1 de modo que el niño los pueda comparar. Deje el modelo en su lugar. Dé dos bloques más al niño y diga:

Ahora hazlo tú. Avísame cuando hayas terminado.

No tome el tiempo en este ensayo.

Segundo Ensayo

Si el niño responde incorrectamente o si el niño no completa el patrón correctamente pasados 30 segundos, siga el procedimiento del Segundo Ensayo: Señale el error, demuestre y diga:

Trata de nuevo.

Item 8

Figura

Segundo Ensayo

Tiempo Límite: 30 segundos por ensayo.

Retire el modelo del item 7. Mezcle los bloques del niño, pase al item 8 y diga:

Ahora trata de hacer éste. Te voy a tomar el tiempo con este reloj, pero trabaja con cuidado. Avísame cuando hayas terminado.

Comience a tomar el tiempo.

Segundo Ensayo: (si es necesario). Muestre el error y diga:

Trata de nuevo.

Item 9

Figura

Segundo Ensayo

Tiempo Límite: 30 segundos por ensayo

Mezcle los bloques del niño, pase al item 9 y diga:

Ahora trata de hacer éste.

Comience a tomar el tiempo.

Segundo Ensayo (si es necesario). Muestre el error y diga:

Trata de nuevo.

Item 10

Figura

Tiempo Límite: 30 segundos

Mezcle los bloques del niño, pase al item 10 y diga:

Ahora trata de hacer éste.

Comience a tomar el tiempo.

(8) Punto de Decisión – edades 5.0-6.11 (después de administrar el item 10)

Itemes 11-13

Figura

Tiempo Límite: 30 segundos (item 11)
40 segundos (itemes 12 & 13)

Mezcle los bloques del niño, pase al item 10 y diga:

Ahora trata de hacer éste.

Comience a tomar el tiempo.

Comienzo: Edades 13.0-17.11

Ejemplo D

Figura y Demostración

Segundo Ensayo

Tiempo Límite: 60 segundos por ensayo

Dé al niño dos bloques más (un total de cuatro) y diga:

Aqui hay cuatro bloques. Vas a necesitarlos todos para hacer este patrón. Mira como lo hago.

Usando los bloques del niño, construya el patrón y coloque el Booklet 1 junto a los bloques para que el niño pueda comparar los patrones. Luego mezcle los bloques del niño, déselos y diga:

Ahora hazlo tú. Avísame cuando hayas terminado.

Segundo Ensayo: Si el niño responde incorrectamente o no completa el patrón en 60 segundos, siga el procedimiento del Segundo-Ensayo. Señale el error. Demuestre. Diga:

Trata de nuevo.

Itemes 14 – 15

Figura

Segundo Ensayo

Tiempo Límite: 60 segundos (Item 14)

90 segundos (Item 15)

Mezcle los bloques del niño y diga:

Ahora trata de hacer éste.

Comience a tomar el tiempo.

Segundo Ensayo: (si fuese necesario) Señale el error. Demuestre.

Trata de nuevo.

Item 16

Figura

Tiempo Límite: 90 segundos

Ahora trata de hacer éste.

Comience a tomar el tiempo.

(9) Punto de Decisión – Edades 7.0-12.11 (después de administrar el item 16).

Matrices

Materiales: Booklet 2

Comienzo: *Todas las edades*

Ejemplos A,B y C

Booklet 2: Señale la matriz en la parte superior de la página y diga:

Mira estos patrones

Señale el espacio en blanco y diga

Como puedes ver, les falta una parte...

Haga un gesto circular alrededor de las respuestas en la mitad inferior de la página y luego señale el espacio en blanco y diga:

Señala la figura que debe ir aquí arriba.

Si el niño responde *incorrectamente* o no responde, dé las siguientes instrucciones de enseñanza :

Ejemplo A

Este no está del todo correcto. Hay un círculo en cada parte, de modo que aquí también debe haber un círculo.

Ejemplo B

Este no está del todo correcto. Arriba hay dos Xs y abajo hay un cuadrado, de modo que aquí también debe haber un cuadrado.

Ejemplo C

Este no está del todo correcto. En este lado (señale el lado izquierdo) **hay cosas iguales. En el centro hay puntos, y en este lado** (señale el lado derecho) **hay líneas. De modo que aquí también debe haber una línea así.**

Edades 5.0-7.11 continue con el Item 1

Edades 8.0-10.11 continue con el Item 5

Edades 11.0-17.11 administre el Ejemplo D y continue con el Item 15

Itemes 1-7

Ahora mira estos patrones. (señale la matriz) **Qué le falta aquí?** (señale el espacio en blanco) **Encuéntralo aquí abajo.** (señale la parte inferior de la página)

Para los siguientes itemes puede decir: **Ahora trata de hacer este.** O simplemente presente el siguiente item.

Ejemplo D

Administre como se describe para itemes 1-7. Dé las siguientes instrucciones de enseñanza a todos los niños.

(3) Si el niño responde *incorrectamente* o no responde, señale la matriz y diga: **Este no está del todo correcto. La fila de arriba tiene un cuadrado, un triángulo y un círculo. La segunda fila tiene las mismas cosas en diferente orden. La fila de abajo tiene un triángulo y un círculo pero no tiene un cuadrado, de modo que el cuadrado debe de ir aquí. Algunos de los patrones, como éste, también se pueden hacer en el otro sentido: Si miras a este lado**

(señale el lado izquierdo) **bajando, luego al medio, luego a este otro lado** (señale el lado derecho) **resulta igual.**

(4) Si el niño *pasa.* Señale la matriz y diga: **Está bien. Algunos patrones, como este, se pueden hacer de dos maneras. Cada una de las dos filas de arriba tiene un cuadrado, un triángulo y un círculo. La fila de abajo tiene un triángulo y un círculo pero no tiene un cuadrado, de modo que el cuadrado debe de ir aquí. Pero también se puede hacer en el otro sentido: Si miras a este lado, bajando** (señale el lado izquierdo) **luego al medio y luego a este otro lado** (señale el lado derecho) **resulta igual.**

Itemes 8-33

Ahora mira estos patrones (señale la matriz) **Qué le falta aquí?** (señale el espacio en blanco) **Encuéntralo aquí abajo.** (señale la parte inferior de la página). Para los siguientes itemes puede decir: **Ahora trata de hacer éste.**

Item 9

Si el niño *falla* el item, use las siguientes instrucciones de enseñanza:

Este no está del todo correcto. Arriba hay dos triángulos. En la parte de abajo hay un cuadrado, de modo que aquí también debe haber un cuadrado. Los de este lado (señale el lado izquierdo) **están vacios, pero el de este lado** (señale el lado derecho) **tiene una cruz, de modo que aquí también tiene que haber una cruz.**

(10) Punto de Decisión – Edades 5.0-7.11 – (después de administrar Item 4)

(11) Punto de Decisión – Edades 8.0-10.11 – (después de administrar Item 23)

(12) Punto de Decisión – Edades 11.0-17.11 – (después de administrar Item 33)

Razonamiento Secuencial y Cuantitativo

Materiales

Edades: 6.0-10.11 – Sequential & Quantitative Reasoning Booklet (Set A). Lápiz.

Edades: 7.0-17.11 – Booklet 1 (Set B).

Comienzo: Edades 5.0-10.11

Ejemplo A

Dé un lápiz al niño. Señalando el Ejemplo A en el cuadernillo diga:

Mira esta fila de Xs y Os. Forman un patrón: Primero un X, luego una O, luego una X, luego una O, y así continua. Qué debe de ir aquí? Dibújalo.

Si el niño falla, enséñele diciendo:

Aquí va una O porque el patrón es X, O, X, O, X y luego una O. Tratemos con otro.

Ejemplo B

Pase al Ejemplo B y señalando diga:

Este patrón es diferente. Comienza con O, O, X, X, O Qué debe de ir aquí? Dibújalo.

Si el niño falla, enséñele diciendo:

En este patrón, hay grupos de dos letras iguales: Dos Os y luego dos Xs. Luego deben ir dos Os, de modo que la respuesta correcta es O.

Edades 5.0-8.11 Continue con el Item 1

Edades 9.0-10.11 Continue con el Item 8

Itemes 1 – 15

Todos los itemes 1-15 se administran de la misma manera. En la página apropiada, señale el espacio en blanco y diga:

Este es un patrón diferente. Qué debe de ir aquí?

(13) Punto de Decisión – Edades 5.0-6.11 – (después de administrar item 16)

Comienzo: Edades 11.0-17.11

Ejemplo C

Señale el par de números de arriba y diga:

Mira los dos números en este cuadro. Veamos por que van juntos. El segundo número es uno más que el primero. (señale el siguiente par de números y diga) **Ahora mira los dos números en este cuadro. Van juntos de la misma manera: el segundo número es uno más que el primero.**

Si el niño *falla*, enséñele diciendo:

Qué número debe ir aquí para que los dos números sigan la misma regla? La respuesta debe de ser 3 porque en esta página la regla es que el segundo número en el cuadro es uno más que el primer número. El primer número es 2, de modo que el segundo número debe de ser 2 más 1, o sea 3.

Ejemplo D

Señale el cuadro de arriba y diga:

Ahora mira esta página. En este cuadro, el segundo número es 2 números menos que el primer número. (señale el siguiente cuadro y diga) **Aquí también la regla es que el segundo número es 2 números menos que el primer número.**

(señale el espacio en blanco en el tercer cuadro y diga:

Qué número debe ir aquí de modo que estos dos números sigan la misma regla?

Si el niño *falla* enséñele diciendo:

En esta página la regla es que el segundo número es 2 números menos que el primero. El primer número es 4, de modo que el segundo número es 4 menos 2, o sea 2.

Ejemplo E

Diga:

En cada página hay una regla sobre como los números en cada cuadro van juntos. Mira el cuadro de arriba y el del medio y descubre cual es la regla. Luego dime que número debe ir en el espacio en blanco, de modo que el cuadro de abajo siga la regla. Tratemos con el siguiente.

Pase al Ejemplo E, señale el cuadro de abajo y pregunte:

Qué número debe de ir aquí?

Si el niño falla enséñele de la siguiente manera:

Pídale al niño que diga como es que los números en los dos primeros cuadros van juntos (o cual es la regla). Dé ejemplos si es necesario.

Luego pídale al niño que le diga que número debe de ir en el espacio en blanco. Ayúdelo si es necesario.

Edades 11.0-14.11 Continue con el Item 16

Edades 15.0-17.11 Continue con el Item 24

Itemes 16-39

Los items 16-39 se administran todos de la misma manera.

Itemes 16-39

En la página apropiada del Booklet 1 señale el espacio en blanco y diga:

Qué número debe de ir aquí?

Si el niño fall en Itemes 16-17 (o 24-25) o en el Item 31, instrúyalo enseñándole como en el Ejemplo E. En estos Itemes, reconozca las respuestas correctas del niño.

Punto de Decisión - Edades 7.0-10.11 (después de administrar Item 23)

Punto de Decisión - Edades 11.0-14.11 (después de administrr Item 30)

Punto de Decisión - Edades 15.0-17.11 (después de administrar Item 39)

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An Applied Research Study of Family-Centered Practices in an Ethnically Diverse Elementary School

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Current education policy advocates family-centered practices over child-centered ones. While family-centered philosophies are being adopted in schools, educators are having problems changing their actual practices with families. This study reports the results of an applied research case study within an ethnically diverse elementary school. Families' and educators' perceptions of family-centered practices were examined for the purpose of improving practices. Twelve educators and 129 families completed a survey measuring perceptions of typical and ideal family-centered practices. An exploratory factor analysis was conducted to provide a description of the patterning of the families' perceptions of the school's family-centered practices. Three main factors accounted for 57% of variance, Positive Relating with Families, Partnering with Families, and Family-Focused Approaches. There were no differences between educators and families for either typical or ideal ratings of family-centered practices. Both educators and families desired a higher level of family-centered practices than they were currently providing or receiving. Analyses considering demographic characteristics indicated significant group differences. The higher the education level of families the higher they rated the level of ideal practices desired, but this was not so for typical practices. Single-parent families rated typical family-centered practices at their school lower than did two-parent families. No differences were found among these diverse families by ethnicity or home language. The implications for school psychologists' work with families and schools are discussed.

Keywords: Applied research, Family, Diversity, Schools, Family-centered practices

A collaborative report by the U. S. Departments of Education and Health and Human Services (Melaville, Blank, & Asayesh, 1993) argues that the child-centered, categorical approach to delivering services has a number of shortcomings. These flaws are described as (a) dividing the problems of children and families into rigid and distinct categories, (b) being crisis oriented, (c) being unable to develop comprehensive solutions, (d) focusing on family weaknesses and problems, and (e) lacking functional communication among various agencies. Such problems have led many in the education, health, mental health, and social services fields to believe that the key to successfully addressing current social problems lies more in how services are provided rather than how much, or how many, are provided and that a family-centered approach is necessary (Karasoff, Blonsky, Perry, & Schear, 1996).

This approach is based on Bronfenbrenner's (1979) ecological theory of human development. In this theory, he argues that the interconnections between the various systems (school, family, and com-

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munity), that influence a child's development, are as decisive for a child's development as the actual interaction the child has within each. He further adds that the capacity of these systems to function effectively as a context for the development of the child depends on the existence and nature of the interconnections between them.

Family-Centered Practices

Family-centered practices have been defined by researchers (Bruder, 2000; Green, Johnson, & Rodgers, 1998; Hooper-Briar & Lawson, 1994) as emphasizing families' strengths rather than deficits, promoting family choice and control over desired resources, including the development of a collaborative relationship between professionals and parents, offering services preventively and to entire families rather than to parents or children separately, and providing a wide array of comprehensive and individualized services to families. McWilliam, Tocci, and Harbin (1998) used qualitative research to derive their definition of family-centered practice through exploring the meaning of this type of practice from the perspectives of service providers and the families they served. The authors concluded that a family-centered interaction style included five main components: family orientation, positiveness, sensitivity, responsiveness, and friendliness. Having a family orientation involved taking an interest in the family rather than just the child. Positiveness was characterized by thinking the best about families without passing judgment on them. Sensitivity was demonstrated by professionals empathizing with families and understanding their needs and concerns. Responsiveness to parent requests involved doing whatever it took to address families' concerns. Friendliness translated to treating families as friends. Skill in working with children and in collaborating with community agencies to meet families' needs also emerged as an important aspect of family-centered practice.

McWilliam, Maxwell, and Sloper (1999) specified four assumptions underlying family-centered practices; (a) children and families must be viewed as a unit in which an effect on one will affect the other, (b) interventions for both family and child will have a larger impact than interventions focused only on the child, (c) family members should have a choice about which or what types of services are delivered and the amount of involvement they have in those services, and (d) professionals should consider family priorities even if they are different from the professionals' priorities.

This concept of family-centered practice extends beyond parent involvement and home-school partnerships. According to McWilliam et al. (1999), the three concepts are similar in their emphasis upon developing positive relationships between professionals and parents, communicating with families, and offering families opportunities to be meaningfully involved in schools. However, they do differ in their underlying assumptions and basic values. The concepts of parent involvement and home-school partnerships convey a greater value on children than families. Within this framework, school personnel view their work with families as a strategy for reaching their ultimate goal of educating children. In the family-centered concept, providing support to families is an important goal in and of itself. Also, families are seen as the primary decision makers for their children and are supported as key decision makers in all aspects of school services, and their needs beyond the education of the child are considered.

In the education field, family-centered service delivery was first considered best practice in early childhood intervention (Romer & Umbreit, 1998) and is currently being promoted in elementary schools through legislation and policy (Adelman & Taylor, 1998; Johnson, 2000; McWilliam, Ferguson et al., 1998). However, many schools and organizations that adopt a family-centered philosophy have difficulty delivering services in a way consistent with those values (Bruder, 2000; McWilliam, Ferguson et al.). Many service providers have a hard time adjusting to their new role under a family-centered approach (McWilliam, Tocci et al., 1998) and report discomfort when parents are put in leadership or decision-making roles (Eber, 1996).

It has been found that school personnel perceive economically disadvantaged and/or ethnic minority families as the most challenging to develop relationships with and to get involved with the school (Moles, 1993). Therefore, difficulties in implementing family-centered practices may be perceived by school personnel as being even greater with these particular families. Also, the families' own perceptions of their role with the school could increase the difficulty level of developing relationships. Research findings with minority parents suggested that they want to be involved with the school but believe it is the school's responsibility to take the lead in initiating the collaboration (Chavkin & Williams, 1993).

For various reasons an implementation gap often exists between family-centered theory and family-centered practice (Bruder, 2000). In their study of patterns of service delivery and participation in family support groups, Green, Johnson, and Rodgers (1998) found little evidence that programs based on a family-centered philosophy actually provide individualized family-centered services consistent with that philosophical model. There is also evidence that Individualized Family Service Plans (IFSP) still emphasize child-centered instead of family-centered outcomes and family support (McWilliam, Ferguson, et al., 1998).

McWilliam et al. (1999) examined parents' and teachers' perspectives of family-centered practice in elementary schools (kindergarten through third grade). They surveyed 135 educators and 121 parents from 88 public elementary schools across North Carolina. Most (approximately 70%) of the parents had at least a high school education, approximately 73% were Caucasian and the others were primarily African-American. Educators and families rated ideal practices as higher than typical practices. Families overall rated typical family-centered practices as lower than did educators. These researchers also found that Kindergarten teachers perceived current services as more family-centered than did teachers of third grade classes, but grade level was not associated with families' perceptions. The only demographic predictor of families' perceptions of typical family-centered practice was socioeconomic level (SES). Families with higher SES reported current practice as typically more family-centered than did lower SES families.

Purpose of this Study

Due to the forces influencing educators to change from child-centered practices to family-centered practices and the known implementation gap between adopting this philosophy and actual practice, it is important that family-centered practices be researched in actual school settings. This project was an applied research study in a California Bay Area elementary school with ethnically and linguistically diverse families. The school participated in the study for the purpose of improving its practices with their diverse families. To better understand how to do this, the parents and educators were asked to rate current school practices and to report what they think should happen ideally. The school has a strong emphasis on serving all students and families equitably, therefore there was great interest in exploring how their practices are perceived by various diverse groups of families. The principal was specifically interested in variability among the teachers' perceptions of family-centered practices, as well as differences between the educators' and the families' perceptions. Therefore the following four hypotheses were explored: (a) both educators and families would rate ideal practices higher than typical ones, (b) educators would rate typical practices higher than families, (c) educators ratings would differ by certain characteristics (grade level taught and years of experience), and (d) families' ratings

Table 1
Measured Dimensions of Family-Centered Practices.

Item	Response Statement: Most Family-Centered Practice
1. Philosophy	Concern for the needs of all children, including those with disabilities and their families is central to the school philosophy statement.
2. Support	All school personnel are friendly and supportive of families.
3. Sensitivity	School personnel almost always respond to families' needs without being critical.
4. Responsiveness	School personnel almost always make changes when families ask for things and almost always check to make sure families are happy.
5. Understanding	School personnel have a good understanding of families' values and are interested in learning even more about families.
6. Empowerment	All school personnel make families feel like they do know how to help their children learn and grow.
7. Communication	School personnel are almost always clear when telling families their concerns and suggestions and check to make sure families understand.
8. Services	School personnel give families many choices for their child and family.
9. Progress Information	School personnel often inform families about their child's progress in school, good and bad.
10. Teamwork	School personnel work together regularly and they almost always ask families to work with them.
11. Team Meetings	School personnel would encourage and help families lead some school meetings, if they wanted.
12. Home Activities	School personnel give families a choice about whether or not they want to plan or do things at home with their child.
13. Advocacy	School personnel encourage families to speak up for their child and family even with school issues.
14. Administrative	All families are given the option to have at least some participation in school administrative activities and decisions.

would differ by certain characteristics (grade level of eldest child, ethnicity, parent education level, family unit structure, and primary language spoken at home).

METHOD

Participants

The sample consisted of 129 families and 12 educators from an ethnically diverse, Title I elementary school (K-5) located in the Bay Area of California. The sample of families was composed of 21% Hispanic, 19% Caucasian, 17% mixed Asian, 13% Filipino, 13% Biracial, 11% African American, and 6% Other. The majority of the families were two-parent units and the others were single-parent, or other type of family, units. Fifty-nine percent of the parents were high school graduates, and 54% reported English as the primary language in the home. The other primary languages reported were mainly Spanish, several Asian languages, and Tagalog.

Of the 12 educators sampled, nine were regular educators, two were specialists, and one was a special education teacher. Of the regular educators, five were from the lower grades (K-2) and four from the upper grades (3-5). Three of the educators had three years of teaching experience, four had four to seven years experience, and five had more than seven years experience.

Instrument

The questionnaire used in this study consisted of demographic questions and the shorter version of the Family-Centered Elementary School Practice Scale (FCESPS; McWilliam et al., 1999). The survey was translated into Spanish and then back to English by different translators to check the accuracy of the original translation. Information about grade level taught and years teaching were obtained from educators. For families, information about grade of eldest child in the school, ethnicity, parent education level, family unit structure, and primary language spoken at home were obtained.

The FCESPS is an instrument designed to measure family-centered practices in elementary schools. The original 20-item version of the FCESPS contains 6 items specific to special education practices and 14 items that address general school practices (see Table 1). Due to the school's interest in how all families view their practices (not just special education parents) the shorter version that only addresses general school practices was used. The educator and family versions are worded slightly differently to reflect their respective audiences.

Each item on the FCESPS includes a five-point rating scale (see Table 2). The scales are anchored by statements about the level of family-centered practice corresponding to each particular item. The first statements represent the least family-centered practices and the fifth statements represent the most family-centered practices. There are two scales, typical and ideal, for each item. For the typical scale, respondents are instructed to choose one of the five statements that best describes typical practice at their school. For the ideal scale, they are instructed to choose the statement that best describes ideal family-centered practice. Three examples of how to do the ratings are given as part of the instructions.

The FCESPS appears to be a reasonably reliable and valid measure of families' and educators' perceptions of both typical and ideal family-centered practice in elementary school. Cronbach's alpha for the 14-item version used in this study was .90 for the total typical score and .85 for the total ideal

Table 2
Example Item From the Family-Centered School Practices Scale.

Item = "Responsiveness" of school staff
Response options (identify what "typically" happens at your school and what would be the "ideal" for your school)

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1. School personnel get defensive when I ask for things or tell them my concerns.
2. School personnel listen but do not do anything when I ask for things or tell them my concerns.
3. School personnel make only small changes when I ask for things or tell them my concerns.
4. School personnel usually make changes when I ask for things or tell them my concerns and sometimes check to make sure that I am happy.
5. School personnel almost always make changes when I ask for things almost always check to make sure I am happy.

score, demonstrating internal consistency for both scales. The FCESPS also demonstrated construct validity when compared to another measure of family-centered practices (McWilliam et al., 1999).

Procedures

The school principal attempted to sample as many educators and families as possible at the school. During a staff meeting, copies of the educators' version of the survey were distributed and then returned to the office within two weeks. The voluntary and confidential nature of participation in the survey project was clearly stated. Several weeks later, the principal visited each classroom to circulate the family version of the survey. The survey was explained and then a copy sent home with the oldest child in each family. Copies were also mailed to families whose children were absent on that day. Families who, according to school records, spoke Spanish as their primary language at home were given both the English and the Spanish versions of the survey. The first page of the family version of the survey contained a letter from the principal explaining the purpose and nature of the survey. It instructed parents to return the surveys to their child's classroom teacher in an envelope provided without names in order to maintain confidentiality. As an incentive, the principal informed students that the class that returned the most surveys by the two-week deadline would have an ice cream party.

Only those surveys that had two or fewer incomplete items on either the typical or ideal scales of the FCESPS were used. All of the educators' surveys and 129 of the approximately 150 surveys returned by families (approximately a 50% return rate) met the completion criteria for use in this study. Incomplete items on the FCESPS, as well as the educational level and family unit categories of the demographic section, were dummy coded using rounded mean item responses. Blank items on the remainder of the demographics section were coded as no response.

During coding of educator or family characteristic variables, small groups of similar responses were often combined. The educators' grade taught variable combined into three groups. "Lower Grades" contained respondents who taught kindergarten through second grade. "Upper Grades" contained third-through fifth-grade educators. The third group was composed of two specialists and one special education teacher. The educators' years of teaching variable was collapsed into three groups of similar size, less than 4 years, 4 to 7 years, and more than 7 years of teaching experience.

For family characteristics, the home language, family unit, and ethnicity variables contained combined groups. Under the home language variable, the Spanish-language group contained respondents who spoke Spanish and those who spoke both Spanish and English as their primary languages at home. Likewise, the Tagalog-language group contained those who were either bilingual in English and Tagalog or who spoke Tagalog as their primary language at home. The Asian-language group contained respondents who were bilingual in, or who spoke, any Far East Asian language other than Tagalog at home. Under the family unit variable, the "other" group contained predominantly singe-parent families but also a few respondents who indicated other nontraditional family unit structures such as grandparents with custody of their grandchildren. Under the ethnicity variable, the Asian group consisted of respondents who wrote in or checked off any single Asian ethnicity other than Filipino. The biracial group was composed of all respondents who checked two different ethnic options. The other/no response group was composed of the few respondents who indicated other ethnic origins than the main groups, or who did not either specify their ethnicity or respond to that item on the survey.

Data Analysis

Mean scores for overall typical and ideal family-centered practices were calculated for both families and educators, as well as for various subgroups within these two main categories. For the purposes of providing a meaningful way to describe the families' perceptions of this school's existing typical family-centered practices, an exploratory factor analysis with orthogonal rotation was conducted. Also, in order to explore each of the hypotheses for this study outlined above, the following analyses were performed:

1. To determine whether educators and families differed in their perceptions of family-centered practices at their school, two independent two-tailed *t*-tests were performed, assuming equal variance.
2. To determine whether typical practice mean scores differed from ideal practice mean scores, two-paired, one-tailed *t*-tests were performed, one for families and one for educators.
3. To determine if perceptions of typical or ideal family-centered practices among various groups of educators differed, a series of four one-way ANOVAs were performed. The characteristics for educators examined were grade taught and experience (years teaching).
4. To determine if perceptions of typical or ideal family-centered practices among various groups of families differed, a series of 10 one-way ANOVAs were performed. The characteristics for families examined were grade of eldest child at the school, home language, ethnicity, education level, and family unit.

It should be noted that even though the sample of educators is very small, analyses that include the educators were conducted in response to the principal's specific inquiries. Their results are to be interpreted only as exploratory analyses and with extreme caution.

RESULTS

Exploratory Factor Analysis

According to the factor analysis, three factors accounted for 57% of variance. They were labeled Positive Relating with Families, Partnering with Families, and Family-Focused Approaches. See Table 3 for results of the factor analysis, including structure coefficients, communalities, and eigenvalues. The Positive Relating with Families factor (Factor I) contained items on personal empowerment, friendliness and support, responsiveness, communication, sensitivity of school personnel, understanding the family, and sharing child progress information with family. The Partnering with Families factor (Factor II) contained items on teamwork, team meetings, families' administrative involvement, educational activities at home, and family advocacy. The Family-Focused Approaches factor (Factor III) contained items on the school's philosophy of focusing on family needs and concerns and services offered for families.

Families rated current practices in the school highest for Positive Relating with Families (Factor I), with a mean score of 3.71, and lowest for Partnering with Families (Factor II), with a mean score of 3.19. They rated current practices for Family-Focused Approaches (Factor III) in between the other two, with a mean score of 3.32.

Ideal vs. Typical Family-Centered Practices

Results of *t*-tests indicated that ideal practice mean scores did differ from typical practice mean scores within the groups. *The t*-scores were as follows: $t\,(128) = 14.8, p < .001$ for families and $t\,(11) = 13.4, p < .001$ for educators. Therefore, desired (ideal) family-centered practices were rated significantly higher than practices currently experienced (typical practice) for both educators and families at this elementary school. The educator and family typical practice mean scores (with standard deviations in parentheses) were 3.41 (0.38) and 3.57 (0.66) respectively, and their ideal practice mean scores were 4.64 (0.28) and 4.46 (0.49) respectively. There were no differences between educator and family means for both typical and ideal practices.

Educators' Perceptions by Characteristics

Results revealed that neither ideal practice means nor typical practice means for educators differed by grade taught or by experience (years teaching). Although the typical means were 3.14, 3.54, and 3.73 and ideal means were 4.51, 4.68, and 4.79 for lower grades, upper grades, and specialist respectively, there were no significant differences among them. For number of years teaching, the typical means were 3.44, 3.38, and 3.44, and the ideal means were 4.40, 4.61, and 4.80, for teachers with less than 4 years, 4 to 7 years, and more than 7 years experience, respectively.

Families' Perceptions by Characteristics

The results of the one-way ANOVA by family unit for typical practices revealed differences between the two-parent family units mean score and other family units mean score. The two-parent family units have a higher typical mean score ($M = 3.65$, $SD = 0.64$) than other family units ($M = 3.37$, $SD = 0.69$), $F(1, 127) = 5.09$, $p = .03$. The one-way ANOVA by family unit for ideal practices indicated that there were no differences between family units. For the two-parent units the ideal mean score was 4.46, and for the other family units the ideal mean score was 4.45.

The parent education level one-way ANOVA for ideal practices revealed differences among the various education levels, with the families with higher education levels having higher mean scores for reporting their desire for ideal practices. The High School or Less group had the lowest ideal mean score ($M = 4.33$, $SD = 0.59$), the group with Some College had the middle mean score ($M = 4.44$, $SD = 0.47$), and the 4-Year College or Beyond group had the highest mean score ($M = 4.61$, $SD = 0.36$), F

Table 3

Structure Coefficients, Communalities, and Eigenvalues for Factors of the Family-Centered Elementary School Practices Scale for Families' Typical Responses.

	Factors			
Item no. and item	Positive Relating	Partnering	Family-Focused	Communalities
6. Personal Empowerment	**.83**	.17	.04	.72
2. Friendliness & Support	**.80**	.17	.22	.72
4. Responsiveness	**.73**	.19	.12	.58
7. Communication	**.68**	.19	.28	.57
3. Sensitivity of School Personnel	**.62**	.29	-.40	.63
5. Understanding the Family	**.56**	.33	.21	.46
9. Child Progress Information	**.46**	.39	.13	.39
10. Teamwork	.32	**.73**	-.09	.63
11. Team Meetings	.24	**.69**	-.10	.54
14. Admin. Involvement	.13	**.66**	.41	.62
12. Educational Activities at Home	.08	**.58**	.26	.41
13. Family Advocacy	.37	**.56**	.33	.56
1. School Philosophy	.19	.10	**.77**	.63
8. Services Offered	.42	.36	**.47**	.53
Eigenvalues	5.65	1.28	1/05	—
% of total variance	40%	9%	8%	—

(2, 126) = 3.65, $p = .03$. The one-way ANOVA by parent education level for typical practices indicated that there were no differences among the education level groups. The means, however, reflected a similar pattern with families with higher education levels having higher mean scores for rating typical practices; the mean scores were 3.18, 3.40, and 3.53 respectively by level of education from lowest to highest.

The one-way ANOVA results by grade of eldest child at the school, by language spoken at home, and family ethnicity revealed that neither ideal practice means nor typical practice means for families differed by these factors. For grade of the eldest child, the typical mean scores ranged from 3.90 (K) to 3.39 (5th), and the ideal mean scores ranged from 4.12 (5th) to 4.69 (1st). For home language, the typical mean scores ranged from 3.57 (English) to 3.68 (Tagalog), and the ideal mean scores ranged from 4.31 (Asian) to 4.51 (English). For ethnicity, the typical mean scores ranged from 3.42 (Asian) to 3.77 (Biracial), and the ideal mean scores ranged from 4.24 (Asian) and 4.55 (Caucasian).

DISCUSSION

This discussion focuses on (a) explanations of the findings, (b) limitations of this study, and (c) implications for school psychologists in their work with families and teachers.

Explanations of Results

The exploratory factor analysis of families' typical ratings revealed three main factors in this current study, Positive Relating with Families, Partnering with Families, and Family-Focused Approaches. Families rated current practices in this school highest for the Positive Relating with Families (Factor I). This suggests that in their current family-centered practices the school staff are perceived by their families as doing the best in having understanding, sensitive, responsive interactions with families; demonstrating positive regard for families' priorities and values; building on families' strength; and keeping families informed of their children's progress. The families rated the Partnering with Families factor (Factor II) for current practices the lowest. The school staff appear to be perceived by their families as weaker in forming alliances with families, involving them in leadership and decision-making roles, relating to them as equals, and advocating for them when needed. The Family-Focused Approaches factor (Factor III) was between the other two and suggests that the school staff is currently perceived by families as needing to increase the official, instituted or established policy and approaches that emphasize responding to the needs and concerns of their families. It is important to note that all three of these factors fell significantly below the level families would ideally like to experience at their school. Therefore it is apparent that the families highly value and desire improvement in all three of these areas.

Ideal family-centered practices were rated higher than typical family-centered practices by both educators and families. These results indicate that both educators and families at this elementary school value family-centered practices and perceive current practices as less family-centered than they would ideally desire. This is consistent with McWilliam et al.'s (1999) findings with educators and families in North Carolina.

Also, families and educators at the elementary school in this study had similar values and perceptions of family-centered practices. Educators rated ideal practices at their school slightly higher and typical practices slightly lower than families did, but these differences were not statistically significant. McWilliam et al.'s (1999) found that families overall, especially families of special education students, perceived typical practices as less family-centered than did educators, but when special education families were excluded, families of regular education students' scores were not significantly lower than educators. This is consistent with the results of the current study.

The ethnic groups in the current study's diverse sample were African-American, Filipino, Asian, Hispanic, and Caucasian, and one group of ethnically biracial families emerged; each comprised 11-21% of this sample. Also, there were 46% of the families who reported other primary languages than English. For this school staff who emphasize equitable services for their students and families, it is important to note that no differences based on ethnicity or home language were found in families' perceptions of the school's typical family-centered practices. These data suggest that no major language group or ethnic group perceives its treatment by school staff as significantly different from any other group at their school.

In addition, there were no differences by parent education level in the ratings of typical family-centered practices by the families. However, families' perceptions of ideal practices at the school differed by parent education level, with the higher education levels desiring higher family-centered practices. In the McWilliam et al. (1999) study, they found that higher SES ratings were associated with higher typical practice ratings. In fact, in their study, SES level was a main predictor of typical practice perceptions in families, with SES accounting for 17% of the variance of typical ratings for families of typically developing children. (Their study did not analyze this for ideal practices.) The authors suggested that the differences in the ratings of typical practices by SES level could indicate that families experienced different treatment by school staff based on SES, with higher SES families receiving more positive, family-centered type interactions. This does not appear to be so of the school in this study and suggests more equitable practices with families across parent education levels. However, the current findings do suggest that families with higher education levels do have higher expectations and desires for family-centered practices at this school.

Another important finding for the school to be aware of is that families' perceptions of typical practices at the school differed by the type of family unit, with two-parent families rating current practices higher than "other" family units, the majority of whom were single parents. Single-parent families may have different needs relating to family-centered practices than two-parent families. They may have greater needs for family-focused support and services. As implicated in the exploratory factor analysis, overall the schools' families perceive the Family-Focused Approaches area (that includes a focus on family needs and services) as needing growth.

For educators, there were no significant differences in either typical or ideal ratings of family-centered practices based on experience or grade level, nor did the families' ratings imply any differences in teachers' practices by grade level of eldest child. These results support the findings of McWilliam et al. (1999) that grade has no effect on ideal practice ratings for educators and no effect on typical or ideal practice ratings by families.

Limitations of the Study

There are several limitations of this study. As a case study of one school, the generalizability of results is limited to this school or similar ones. The small sample size of educators, although an adequate representation of the school's educators, limits the confidence associated with comparisons with other groups. Scaling on the FCESPS was ordinal, not integer. Therefore, ratings might not be consistent across items and the distance between whole numbers on any given item might not be equal. This would effect interpretation of total mean scores, the scores used for analysis in most of this study.

Implications for School Psychologists

School psychologists are very qualified to assume important leadership roles of promoting family-centered practices in schools (Epstein, 1992; Ho, 1997). They understand the importance of the psychological linkages between the support systems of children, acceptance of family differences, and identification of, and use of, strengths in families to help children be successful in school. School psychologists are also experienced in working with both families and school staff and have the skills for program development and evaluation.

In their role in special education, school psychologists especially need to emphasize the role of families as decision makers in the assessment and IEP planning process and model appropriate family-centered practices. It is important, therefore, for school psychologists to personally develop specific competencies in providing family-centered services (Ho, 2001; Karasoff, Blonsky, Perry, & Schear, 1996). These competencies include being able to (a) elicit every family member's perceptions of relevant needs, aspirations, strengths, and solutions; (b) move from an exclusive focus on problems and needs to a shared goal or vision as to how things could be better; (c) empower families to inventory their strengths, preferred solutions, immediate action steps, and barriers to success; and (d) plan for services centered around the family.

Educators in general need to be encouraged to increase their understanding, sensitivity, and responsiveness in their interactions with families and to be trained in ways to further demonstrate positive regard for families' priorities and values, and to build on families' strengths. School psychologists are well qualified to provide this critical training for school staff.

In addition, school psychologists can serve a key role in providing leadership for school personnel in conducting applied research for the purpose of developing and improving family-centered practices, such as the current study. On a more expansive level they could also lead a school in participatory action research to not only develop family-centered practices but family-focused intervention programs as well (Ho, 2002). Participatory action research is a process in which researchers operate as full collaborators with members of an organization (stakeholders) in linking theory and research to acceptable and effective practice. Schools are being encouraged to use this approach to address the challenges of developing system-level interventions for many of their current problematic areas, such as family-school relationships with economically disadvantaged, and culturally and linguistically diverse families. Having the stakeholders (teachers and parents) participate in the development of the family-centered practices and intervention programs would result in the acceptability of, commitment to, and sustainability of the interventions.

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Consultation in New Teacher Groups: School Psychologists Facilitating Collaboration Among New Teachers

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There is a growing recognition of the need to provide new teachers with formalized mentoring and as a result induction programs are now flourishing around the country. Elements of successful induction programs include formal mentorship, reflective practice, and collaboration. The New Teacher Group (NTG) is one form of induction program that meets these criteria. This qualitative study examined how the process of consultee-centered case consultation (CCC) facilitated collaboration, problem-solving, and professional development in an NTG. Over the course of the school year in this NTG, a developmental shift was evident in which the teachers' descriptions of themselves and their students became more positive and replaced the more negative descriptors that were found early in the consultation process. The participants' negative images of themselves, such as inadequate and frustrated, were replaced with positive images that conveyed their evolving ability to think flexibly and effectively. The new teachers' approach to problem solving also underwent a change in which they increasingly began to use professional concepts and methods to identify and define problems. NTGs offer school psychologists an opportunity to expand their consultation role within school districts.

Keywords: Consultation, Teachers, School Psychologists, Mentoring, Reflective practice, Collaboration

The first years of teaching are a critical period in the development of new teachers' ability to meet the complex educational and social needs of their students. During this time of entry into the profession, novice teachers begin the tremendous task of attempting to meet ever more stringent teaching objectives in classes with children from an ever more socially and ethnically diverse student body. Beginning teachers often lack the sophistication and professional wisdom necessary to both adequately conceptualize the intricate issues inherent in such challenging teaching environments and to implement the multifaceted strategies that are required to completely meet the needs of a broad range of learners (Hollingsworth, 1989; Kagan, 1992).

While there is an awareness of the need to actively support the development of novice teachers (Cady, Distad, & Germundsen, 1998; Halford, 1998), finding ways to do so has proven difficult because of the functional realities of the job: social isolation, lack of opportunities for collaboration, and overwhelming time demands. The social isolation and relatively infrequent interactions with colleagues discourages genuine dialogue, cooperation, and collaboration among teachers (Rogers & Babinski, 2002). The lack of opportunities to interact closely with peers limits teachers' professional development and may undermine their ability to meet the instructional challenges inherent in the work. Around

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the country, school districts have begun to recognize these problems associated with inadequate new teacher induction and have begun implementing various forms of mentoring programs (Corcoran, 1992; Kestner 1994).

Key elements of new teacher induction programs include formal mentorship, opportunities for situated learning and reflection on practice, and collaboration (Danielson, 1998; Garcia & Harris, 1998). Among the most promising kinds of induction programs are new teacher groups (Cady, Distad, & Germundsen, 1998; Willams & Willamson, 1996). These groups are typically comprised of new and experienced teachers and the goal is to use the interpersonal structure to formally facilitate collaboration, reflection and problem solving. Effective, supportive interpersonal interactions are at the core of these groups; therefore, it is crucial that the facilitators be competent group leaders.

School Psychologists and New Teacher Groups

Just as the teaching profession has had to adapt its training and expand its functional role to meet the educational needs of diverse students, the profession of school psychology has also experienced pressures to expand and modify professional practice. Reschly and Ysseldyke (1995) describe a paradigm shift in which the professional practice of school psychology has increasingly moved toward the provision of services "guided by problem-solving" (p. 17). There has also been an increased focus for school psychologists to not only provide direct services, such as assessment, but to also provide forms of indirect service, such as consultation (Gutkin & Curtis, 1999). School psychologists have risen to the professional challenge and begun to provide various forms of consultation in numerous settings (Borgelt & Conoley, 1999; Ross, 1995).

One new indirect service option available for school psychologists is in the arena of professional development through consultation. School psychologists bring a unique skill set to their professional workplace and not only are they the most proficiently trained in assessment and child development, but they also often have advanced training in group process and system change (Carey & Wilson, 1995). New Teacher Groups offer school psychologists the opportunity to use their consultation skills in the provision of professional development as an indirect service.

THEORETICAL FRAMEWORK

New Teacher Groups are similar to other kinds of school-based problem-solving groups in two ways: (a) the general underlying assumption is that engaging in collaborative conversations with peers facilitates individual and system change (Chalfant, Pysh, & Moultrie, 1979), and (b) the focus of the group is on external issues (i.e., children in the classroom). However, they are unique in that a primary goal is to support the rapidly evolving professional development of the group's members. Consequently, in addition to facilitating collaboration, the process of New Teacher Groups also needs to reflect the added focus on the emerging professional. Two primary theoretical constructs underlie our conceptualization of the process necessary to assist collaboration and support professional growth: (a) Caplan and Caplan's (1993) framework for consultee-centered case consultation and (b) a socio-cultural view of situated learning (Bahktin, 1986; Vygotsky, 1978). Taken together, these two approaches provided an integrated rationale for the form and process of the unique goal of New Teacher Groups. In the next section, each of these theories will be described and their utility for supporting the New Teacher Groups explained.

Consultee-Centered Consultation

One of the two primary goals of the New Teacher Groups was to provide a formal space in which the new professionals could engage in ongoing collaboration and problem solving. Consultee-centered consultation was chosen as a facilitative format for the group because of its good fit with this goal. The basic tenets of this model of consultation are: (a) that consultation is a problem-solving process; (b) it should be conducted in a non-coercive relationship (that is, no supervisory relationship between the consultant and the consultees); (c) orderly reflection is encouraged; (d) problems are viewed through multiple perspectives and issues are reframed; and (e) alternative hypotheses are generated (Caplan & Caplan, 1993; Caplan, Caplan, & Eurchal, 1995). These core characteristics of consultation overlap with the goal of offering the new teachers a venue for ongoing collaboration. Based on the literature on teacher development that the process of becoming a teacher continues beyond the induction year (Levin & Ammon, 1992) it was hypothesized that a focus on consultee change would be beneficial.

Socially-Mediated Process

We also conceptualized the process of consultation and teacher's development as a sociocultural phenomenon (Cole, 1985; Luria, 1976; Rogoff, 1990) because in many ways the task of a teacher's first year is to acculturate into the (sub) culture of professional teaching. A critical developmental task for novice teachers is to incorporate and master the knowledge, customs, and habits inherent in the society of teaching. The New Teacher Group presented the participants with a safe, culturally immersed space to question, incorporate, and consolidate their fluency in the culture of teaching.

In spite of having graduated from a formal training program and acquiring a large body of appropriate content knowledge and skill, teachers in their first years of service often confront novel situations, problems, and issues (Rogers & Babinski, 2002). New teachers may be described as still in the process of becoming professionals and learning some important aspects of their jobs. So, in addition to providing a structured opportunity for collaboration, the New Teacher Groups also provided a situated context in which to facilitate the process of change in new teachers' attributions about and images of themselves and their students. The interactive group process combined with the presence of facilitators and peers established a forum that provided for new teachers' socially mediated development.

The basic premise of Vygotsky's theory (1978) of the "development of higher psychological processes" is that higher order learning is fundamentally a socially mediated process. Vygotsky outlines three core ideas that describe the theory. First, higher mental functions, such as those used in teaching, are social in origin. The process by which individuals acquire advanced cognitive skills is at its core a social one, in which intrapersonal psychological development occurs as a result of exposure to cultural tools (i.e., problem-solving skills) on the interpersonal, social plane (i.e., a New Teacher Group). Second, Vygotsky (1978) suggested that signs and symbols mediate higher-order mental functions. Knowledge is transmitted from the social plane to individuals via language and other sign systems; that is, the judicious and effective use of language will support professional development. Finally, supportive facilitators can help people reach higher levels of functioning.

The basic processes of Vygotsky's theory capture the interpersonal process within the New Teacher Group, and are therefore useful in conceptualizing how the group supported teachers' learning. From a Vygotskyian perspective, the group can be thought of as a form of situated apprenticeship in which the group acts as a mediator of cultural knowledge, where language is used by peers and facilitators to guide new teachers. Because New Teacher Groups are a facilitated, social group in which language-based interactions are encouraged, the basic conditions for higher learning are in place. In this study, the focus is on the process of consultee change as evidenced by the transcriptions of the group meetings across the school year.

THE CURRENT STUDY

Teacher consultation groups have been used as a means to foster new teachers' consolidation of their nascent "book" knowledge and to facilitate their professional development (Rogers & Babinski, 2002). The groups have been led by a teacher educator and a school psychology trainer and are based on Caplan and Caplan's (1993) framework for consultee-centered case consultation. The groups promote collegial sharing and problem solving by providing participants with opportunities to discuss their professional experiences with their peers. The teachers' perceptions of the groups indicate that they feel the groups provide them with social and emotional support and promoted problem solving (Babinski & Rogers, 1998).

In this study, we take a closer look at the new teacher group sessions to determine if the consultation groups had an impact on the teachers' professional development; that is, examining consultee-change as the focal purpose of consultation. Previous research (Knotek, 1997) indicates that over the course of a school year individuals who participated in consultee-centered case consultation in student study teams underwent a developmental progression both in their use of language describing children and their concomitant conceptualizations of the children's functioning. By examining change in the teachers' language over the course of the year we sought to determine if similar developmental progressions occurred in the New Teacher Group. Specifically, we focused on the new teachers' representations of themselves and their students, and observed change in their illustrations or what we are calling their "images" of children and themselves as teachers. In particular, as we looked at teachers' evolving images, we also focused on their related explanations of students' problems and their discussions of potential solutions.

METHOD

Participants

The participants in this study were five white elementary school teachers: four in their first year of teaching and one in her second year. Four of the participants were women and one was a man; all were in their early to mid-20s. They taught third through fifth grades in four different schools in suburban and rural communities. The teachers were invited to participate in the New Teacher Group during their orientation programs in their districts. The teachers agreed to meet every other week throughout the school year to discuss their issues and concerns with two group facilitators. There were 12 sessions over an 8-month period with an average attendance rate of 83%. A problem-solving format was used in the group to provide a framework for the discussions. Although the facilitators provided the structure, the teachers were free to introduce any topics of concern to them. The topics discussed in the sessions and the teachers' perceptions of the group have been reported elsewhere (Babinski & Rogers, 1998).

Procedure

A micro-ethnographic approach, which is an in-depth study of a small number of individuals in a naturalistic setting, was used to examine the teachers' discussions within the consultation group (Bogden & Biklen, 1992; Erickson, 1985; Fetterman, 1989). This approach is ideally suited for the study of the interpersonal discourse interactions among group members. The unit of study or focal event was defined as a collaborative discussion in which teachers and facilitators engaged in a problem-solving process about issues of concern.

Five main types of collection procedures were used to gather qualitative data for the study: (a) participant-observation, (b) audio recording and transcription of 11 meetings, (c) field notes,

(d) postgroup reflections, and (e) end-of-the-year interviews with each member of the group that were recorded and transcribed. These data sources formed the basis for initial process notes. Bias was controlled by cross-checking and "triangulation" (McCraken, 1988) of inferences with other sources, including our field notes, postgroup reflections, and the end-of-the-year interviews with each member of the group. The data analysis began with an examination of the process notes for evidence of themes within and between the meetings. After the themes were identified, coding categories were developed to organize the discourse and themes present in the data, and to permit systematic interpretation (Boyatzis, 1998).

Coding Categories

Coding categories were developed around the content and processes observed in the group's discourse during the focal event and were both theory and data driven (Boyatzis, 1998). The coding categories are divided into three general areas: (a) images of children, (b) images of self, and (c) explanations of the problem.

Within the teachers' images of children category the discussion ranged from a *generalized* notion of children's functioning to a more *specific* description. Generalized descriptors were vague and indefinite, including terms such as "bad," "obnoxious," and "nasty." Specific descriptors were words that related children's functioning to some specifiable category, such as, doesn't pay attention during math, and tugs on other children during recess.

Their images of themselves as teachers included both an *action* element and a *feelings* element. Within the action element the teachers sometimes considered themselves as incompetent, powerless, and perfectionistic, while their images in the feelings element included feeling "miserable," "trapped," and "overwhelmed" (particularly at the beginning of the school year). We were also able to identify two ways in which teachers' images progressed over time: (a) sense of agency and (b) range of choices. The sense of agency refers to the teachers' description of their experience of interpersonal influence between themselves and others (e.g., students or other teachers). For example, if a student was influencing the teacher, the teacher might say, "He bugs me, he made me really, really angry." If the teacher's experience was that he or she was influencing the student they might say, "Craig was bugging Mary so I had him move to the end of the line where he couldn't bother her anymore."

Range of choices refers to the teachers' sense of the spectrum of options available to them in any given situation. At times, the teachers had a unidimensional view of options that tended to focus on problems within themselves or their students, "I have some stubborn children and stressed, agitated kids." At other times, the teachers took a more multidimensional perspective and focused on complex developmental or systems issues. For example, "the school is expanding, there's a shortage of space, and consequently people seem to be taking care of themselves first."

The final coding category dealt with the teacher's attributions of the problems. Weiner's (1986) concept of attributions was used to describe whether the teachers were appealing to internal and/or external explanations for the issues that they presented in the groups. Included in the teachers' attributions were their sense of their own involvement as well as their students' involvement in the situation. A teacher might describe a problem as some personal, constitutional trait "I just get so frustrated that I lose control of the class," or as an external issue "The administrators just aren't helpful." And, the teachers also ascribed the same kind of internal and external locus-of-control to their students, "He's been real depressed and can't concentrate in class" or " When Sara comes in I can tell by how dirty her clothes are what went on at home last night."

These coding categories were used to organize the group's discourse and to allow for a careful analysis of the dynamics contained in the utterances between the group members.

RESULTS

A Developmental Progression

An analysis of the discourse from the transcribed group sessions indicated that the teachers' images and conceptions of children in their classroom as well as their views of themselves as teachers followed a developmental progression over the course of the school year. The group's initial images of children and of themselves as teachers tended to be negative. Early in the school year, the teachers tended to lump together all of their students and consider them as unruly groups that freely exerted their will upon the teachers. Teachers' images of themselves were no less problematic. In the initial sessions, the teachers evoked images of isolation, inadequacy, and frustration.

However, as the group collaborated and co-constructed their understandings and interpretation of the issues, both within sessions and across the school year, these negative images began to recede. As the year progressed, the teachers began to see the children more empathetically and as individuals. The group's collaborative interactions provided multiple perspectives, assisted inquiry, and shifted the role of facilitation to the teachers. These interactions served to alter the images depicted in the group. As the collaboration moved forward, a developmental progression became evident in which images of children moved from vague generalizations to specific descriptions, and the images of teachers moved from a focus on internal self-deprecation to an external focus on developmental and ecological descriptions of the issues and solutions. By the end of the school year, the images recorded in the transcripts are full of a grounded sense of agency and power. The following section provides a case study of Annette as an exemplar of the New Teacher Group's participants evolving images of children and self.

Initial concerns. During an early group meeting the teachers discussed some of their most immediate frustrations and problems. Within minutes of the start of the first group session, the teachers were using personal speech and presenting each other with graphic images of themselves and of the students they served. Because these initial sessions dealt with issues the teachers had found unmanageable their initial images of the children and themselves tended to be pessimistic. The students were portrayed in an undifferentiated state, as an aggregated assembly. Below is an example from the beginning of the first session.

Annette is a new teacher of a combination 3rd and 4th grade class who has just said that much of her day was, "… children being mean – not good to each other all day."

Annette: They just sit there and yell at each other and do whatever they want to do.

Leslie (a facilitator): It is more of [a problem with] the younger kids or more personality [conflict]?

Annette: No, it's all of them. It's just constant.

In this exchange the new teacher, Annette, presents an image of the students that is undifferentiated, and in which the students are combative, inconsistent, and persistently frustrating. The students in her class are described as a generalized group ("They just sit there" and "No, it's all of them") who are a continual problem ("it's just constant"). Annette's image of children was also intertwined with her image of herself as a teacher – not only did she not differentiate among the children, but also she did not initially differentiate herself from the students. The mood and tone of her descriptions of the students were mirrored in the mood and tone of her description of herself. Correspondingly, in these next utterances, which were continued from the previous quote, Annette goes on to present an image of herself that reflects a sense of inadequacy and of falling short of her own expectations.

Leslie: Has anything helped?

Annette: We have great mornings [in my class]. I just can't figure out what makes the difference between a great morning and a horrible afternoon. We have a good time, which is usually good, and bad times which are usually bad, but can't figure out what the difference is. I don't feel like there is a difference in me.

Annette: [The bickering is] just constant. If it's not his fault, it's that one, and not that one, it's this one, etc…

Leslie: Do you feel like you are putting out fires?

Annette: Yes

Annette's description of the issue is phrased in personal speech in which she is powerless to stop these difficult children from acting out, "…but I can't figure out what the difference is. I don't feel like there is a difference in me." Upon further questioning about the situation in the classroom, Annette then describes how this image is tied to her understanding of the situation.

Leslie: So they're not just doing this to bug you?

Annette: No [they're not just misbehaving to bug me], it is not fair for me to ask them to put other things under cover [to make the students just wait for convenient time to work out an interpersonal issue] that, I feel I couldn't put it on hold if I were them. I know I could handle it more maturely, but I couldn't put it on hold.

Here Annette presents an image of an internal conflict in which her power to control her students is mediated by her empathy for the children's feelings. The end result is that Annette has restricted her range of available options and feels powerless to intervene effectively. Fortunately, the session does not end with Annette holding these images. As the session continues, collaboration unfolds and the images begin to change.

Active collaboration begins. At this point early in the session, Annette has done most of the talking and she has painted a picture of herself as a concerned, frustrated teacher who has yet to effectively respond to children who are being mean to each other. Next the facilitator begins to ask the other teachers for their point of view, "How do you handle it?" And, as other teachers contribute to the process, Annette's images show their first evidence of change.

Annette: It seems to me like it's *a whole bunch* [of students who are acting out in line], maybe it's just an *overbearing situation*. (Conversation continues…)

Craig: Like when are the *certain situations* when it actually happens?

Annette: Like I said, we have 75% of our day, which is really good, and then it's just one part of the day. It could be a horrible morning and a terrific afternoon; it could be a terrific morning and a horrible afternoon.

Craig: It is not consistent, right?

Annette: No, maybe I'm not consistent in *methods*, but it's not consistent. I don't know, I really can't figure it out. Some days would be perfect and the next day ….. and really I am just sorry but praise does not work with this group. [If I say] good job [they are] *very obnoxious* and you are always here to reinforce good [children] being good. And, then it's like we don't have to be good anymore.

Craig: I *purposely* think with things like that it is best to *change the environment* before anything else. Always try to *focus on a kid* or whatever *situation*, and try to *alter* that.

Although Annette continues to use potent generalizations such as "overbearing situation" to portray the scene in her classroom, her image of herself and the students begins to shift. The other teachers in the group, Craig and Victoria, collaborate with Annette and use professional speech to press her to get specific ("When are the certain situations?") and her speech changes from describing her internal states to instead identifying some external skills, "No, maybe I'm not consistent in *methods.*" Annette has begun to unpack her gloomy images and her explanation of the problem has changed.

With the narrowing of her focus and an adjustment of the description of the problem to learnable skills (methods) comes an opportunity for new images of children and teachers to emerge. The images of children and the images of teacher are intertwined and based upon the teacher's feeling of control over the situation. Craig illustrates just such a connection when he says, "change the environment" and "focus on a kid." Craig uses words that present an image of a teacher who has agency, "I purposely think," and "alter that," as well one who portrays a value neutral issue "environment," "situation," and "a [single] kid."

Multiple perspectives. As the session continues, the focus of the collaboration shifts toward a co-construction of alternative explanations for the problems in Annette's class. The interpersonal, social space of the New Teacher Group is providing a forum for "dialectical constructivism" or interpersonal bootstrapping (Marshall, 1992; Vygotsky, 1978). The facilitator begins to pose questions that call upon Annette and the group to interpret and explain the process in Annette's class from multiple perspectives. Consequently, the images of students and teachers continue to evolve. (The teachers begin to more actively assume the role of facilitators in later sessions.)

> Annette: It's really *my younger ones.* The "not fair thing" is coming from the eight-year-olds. We need rules.
>
> Leslie: It is so typical that things have to be black and white for these kids and that's the way they think.
>
> Annette: It has to be a wrong or a right.
>
> Leslie: Right out of the *theory.* That's exactly right.
>
> Leslie: You know, you are the *authority* so you do have that right.
>
> (Intervening conversation)
>
> Annette: I can do that with my fourth graders. . . . They would be upset but they would get it. I don't know if the third graders *would be able to get it.*
>
> (Intervening conversation)
>
> Annette: No, I think they know, they know [when they are being mean]. Especially, my fourth graders know when they have done something wrong and it is almost, okay you're right [and] I'll deal with the consequences sort of thing. But, my *third graders, it's just that it's different.*
>
> Leslie: It is interesting because that is that *developmental change* you know. Seven [-years-old] and eight-years-old, and then older kids. So do it. [Understand] that *it is not you.* It is eight-year-olds.
>
> Annette: It is a very *transitional* age, they are very *different…*

In the above transcript professional discourse, in the form of developmental explanations for differences in the students' functioning, saturate the conversation ("don't know if the third graders would get it," "developmental change," and "transitional age") and Annette incorporates this outlook into her speech. The image of children being presented now is of students who have different needs to which the teacher must try different approaches.

In summary, even within the first session there was a pronounced shift in the images of children and images of self as teacher that were expressed in the group. The images of children have moved from undifferentiated to more differentiated, and the teachers' image of self has moved away from frustrated and powerless to thoughtful and insightful. This initial collaboration has allowed the group discourse to move from monolithic and single-dimensional images to slightly more open and multifacetted representations. This example provides evidence that consultation can impact teachers' understanding and perceptions of school-related issues. Later in the school year, near the end of March, several changes are noted in the way the teachers present images of children and images of themselves as teachers.

Annette's new images. The new teacher group was dynamic and it evolved over the school year. As the group progressed, so did the teachers' interwoven images of themselves and their students. Over the course of the sessions, the teachers began to change their combative "us versus them" stance towards the students. Along with the shift in perspective, there was a noticeable difference in the tone of the representations the teachers evoked during the collaboration.

In the next section, a conversation is presented with Annette about a child in her class who is having difficulties with her classmates. As compared to the discussion outlined above, Annette has a different perspective of her students and of herself as a teacher than the one she presented at the beginning of the school year. Recall that in the first session Annette had a rather downbeat assessment of her class and used descriptors such as, "horrible mornings" and "horrible afternoons," to describe the climate of her room. In this series of transcriptions, Annette uses much more positive imagery than in the first session as she talks about the difficulties one of her female students is having appropriately socializing and playing with other students.

> Annette: I have a child that is similar [who bothers and doesn't get along well with the other students.] What is hard for me is that yes, kids don't react well to her, but it's because she doesn't react well to them. It's not that they discredit her from the beginning. She's given them every opportunity not to enjoy her company. It's just sad because there's this child in the room and there's this child destined, not destined, but is this child always going to be this way? Are they always going to have these problems? Are they always going to be the outcast? The sad part is that she is doing it to herself. It's not that she is [purposely] acting to cause these things. It's not that the kids are mean and ganging up on her, it's not anything like that. It's that her *behavior* is not appropriate.
>
> Victoria: And, until she changes that behavior, the pattern won't change.
>
> Annette: She just doesn't see it.

Annette begins the description of her student by citing an internal reaction that she is having about the student's situation, "What is hard for me is that kids don't react well to her...." and "It's just sad." Instead of negatively evaluating the student as being mean or difficult, Annette tolerates the ambiguity of the girl's situation and displays empathy towards the girl's predicament. Next, Annette describes the complex cycle the girl finds herself in – people aren't nice to her and she is not nice to other people, and wonders about the inevitability of the girl's future, "...is this child always going to be this way?" Because Annette is able to tolerate the ambiguity of this girl's future she does not need to summarily dismiss this child. Annette is able to keep her sense of mastery intact and her freedom of choices open as she wrestles with the uncomfortable realities this girl presents. Finally, Annette comes to the conclusion that the girl's behavior, not her being, is the issue.

The image of children Annette presents above is one in which they are complex beings, who have their own troublesome realities, who feel pain, and who are worthy of our understanding. The image of a teacher that Annette illustrates is of a person, who is flexible in thought, can feel empathy, and who can differentiate behavior from essence.

In the next transcription, Annette hypothesizes about how a little girl could have come to such a state that she is unaware of basic social cues and lacks the fundamentals of an efficient social repertoire.

> Annette: That's where you pick up on all those cues [when you are in unstructured, child-governed play]. This is where you learn [that] being held [roughly] like this is not fun. [Other people don't] think that this is fun. What is fun [anyway]? You can't [free play] in ballet or soccer. [Unstructured] play [needs to be available] in 3rd grade kinds of games. … even 4th and 5th grade. How do ten-year-olds play with each other? Not at soccer or ballet or gymnastics…. How do you just go on with an eleven-year-old? I don't think there's enough time for [free play.]

Annette turns a developmental lens on the reasons for poor social skills. From this perspective, Annette is suggesting that children are denied the proper opportunities to learn the basics of play and relationships. Instead of blaming children for being "brats," Annette affiliates with them over the lack of appropriate circumstances to learn. Her image of children is that they are overcontrolled to their detriment, but are teachable and able to socialize if given the chance.

> Annette: They know and basically they just said Mrs. Paul, "Do you not see what she does? This is what she is doing to us." It is not that she knows [she's hard to play with.] [The other students and I] talked about, how bless her heart, on picture day her Mom did her hair. Her hair was sticking straight up and it was not [pleasant to look at.] She wore her hood all day long so people wouldn't see her hair. The kids were really nice about it. They kept saying, "It's not that bad. It is something special. It's something for picture day." The [other students] were really good about it. But, bless her heart, she was just so upset. …
>
> Annette: [The students] have done, they've done reasonable things.
>
> Trish: The kids [are reasonable?]

The above image is striking because it illustrates an open, responsive relationship between Annette and her students. There is an open dialogue about a difficult girl, the girl's special problems, and the other children's humane response to this difficult girl. Annette is confident enough of her own ability that she can collude with her students to support the troubled child. If Annette did not trust her own ability she could not present the other children with the opportunities to learn to be socially responsible. Annette's sense of her competence allows her to consider a range of choices in which she can do more than complain about children or doubt herself.

Within this final image, it is evident that there is a teacher who has allied herself with her students, who has a grounded sense of power, and who can tolerate and embrace her complex yet all too human children. Annette's students are presented as humane, reasonable, and teachable children. In summary, this exemplar illustrates how a new teacher's conceptions of children and of herself as teacher can develop within the supportive and structured setting of the consultation group. And, Annette's transition was not unique among her peers in the New Teacher Group and represents a developmental trend that was seen in the other new teachers.

The New Teacher Group offered a consultative context in which the new teachers solved problems in a constructive and situated setting. While consulting with teachers is not an unusual practice, the New Teacher Group's overt goal of supporting the professional development of the consultee is a new application of consultee-centered case consultation. Consultation is usually construed to be an indirect means to support students and the focus is typically not so explicitly on the development of the consultee. However, in this study client/student change was not the direct focus and was not assessed; instead, the New Teacher Group was primarily aimed at supporting the consultees' (new teachers) further adjustment to their new profession and their continued acquisition of professional skill and insight. The New Teacher Group was in essence a situated context in which facilitators and peers were engaged in the process of cognitive apprenticeship (Rogoff, 1990). Future studies would help to further validate the efficacy of consultation within NTG's across different settings and contexts.

CONCLUSION

In this paper, transcriptions of the group sessions were used to describe and analyze the interpersonal process of collaborative consultation within the New Teacher Group. It was found that over the course of a year, new teachers who participated in the New Teacher Group exhibited pronounced changes in their images of their students and of themselves as professional educators. The New Teacher Group varied from usual consultative practice (Dougherty, 2000) in that the course of action and goal was to further apprentice the new teachers in their ongoing process of becoming educational professionals (Bush, 1965; Gregorc & Ward, 1977).

How can school psychologists become involved with New Teacher Groups? It should be recognized that school psychologists already undertake needs assessments, and engage in numerous forms of professional development (i.e., in-services) and administrative leadership (i.e., chairing crisis intervention teams). Given the critical teacher shortage, districts are often receptive to staff proposals that will support teacher retention. A simple, district-level, needs assessment combined with a proposal may be all that is necessary to gain administrative support for a New Teacher Group. Also, where consultation is already a part of a school psychologist's professional practice, it is possible to start informal, if highly targeted (new teacher) consultation groups.

New Teacher Groups offer school psychologists an opportunity to expand their systems role within school districts. By assuming the role of facilitator and using their training in interpersonal communication, group dynamics, child development, and learning school psychologists may contribute a critical service to fellow professionals and further their professional practice beyond the traditional role of assessment. Through the New Teacher Groups school psychologists can offer developing professionals a supportive, dynamic space in which teachers are free to act as learners and are supported to continue their professional journey to meet the needs of growing children in demanding environments. Finally, by engaging new teachers in a positive consultation experience during the very formation of their careers, school psychologists have the opportunity to broaden their base of peers who value and make use of indirect services.

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Exploring the Association Between Grade Retention and Dropout: A Longitudinal Study Examining Socio-Emotional, Behavioral, and Achievement Characteristics of Retained Students

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Previously published research has not moved beyond studying the general association between retention and high school dropout. This longitudinal study seeks to evaluate within-group differences, exploring the characteristics of those students who are retained and subsequently drop out as compared to those students who are retained and do not drop out. A transactional-ecological view of development is presented to assist in situating the findings within a framework of long-term outcomes across development. The results of this study suggest that there are early socio-emotional and behavioral characteristics that distinguish which retained students are most likely to drop out of high school. In addition, maternal level of education and academic achievement in the secondary grades were also associated with high school graduation status. These findings provide information that extend beyond the association between grade retention and later dropout. In particular, this investigation suggests that it is especially important to attend to the socio-emotional and behavioral adjustment of children throughout their schooling to facilitate both their immediate and long-term academic success.

Keywords: Longitudinal study, Grade retention, Dropout, Socio-emotional adjustment, Aggression, Social skills, Maternal level of education, Achievement

With a growing emphasis on standards and accountability, it is crucial that educational professionals attend to the research addressing the outcomes associated with intervention strategies and utilize this knowledge to inform school practices (Stoiber & Kratochwill, 2000; Kratochwill, Stoiber, & Gutkin, 2000; Kratochwill & Stoiber, 2000). Retaining children at grade level is an intervention strategy that has been steadily increasing throughout the last three decades (U.S. Department of Commerce, Bureau of Census, 1966; 1990). Research published in the last decade has indicated that by 9th grade some 30% to 50% of students will have been retained at least once in their academic careers (Alexander, Entwisle, & Kabbani, 1999; McCoy & Reynolds, 1999; Shepard & Smith, 1989). Overall, it has been estimated that approximately 2.5 million students are retained each year (Dawson, 1998; Shepard & Smith, 1990). This extra year of schooling is estimated to cost U.S. taxpayers over 14 billion dollars annually (Dawson, 1998).

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Several state and federal politicians have sought to end what is known as "social promotion," where a student is automatically advanced to the next grade with his or her peers (Clinton, 1998, 1999; Education Week, 1998). This political trend has been perceived by many involved in education as a directive to retain students who do not meet or who fall below state performance standards. However, research from the past century fails to demonstrate the effectiveness of grade retention for improving either academic achievement or socio-emotional adjustment (Jimerson, 2001a, 2001b).

The Association Between Retention and Dropout

There are few studies examining the efficacy of early grade retention that extend through high school. Those studies that are longitudinal through high school or beyond consistently demonstrate that retained students are more likely to drop out than matched comparison groups of equally low-achieving but socially promoted peers (Jimerson, 1999). Moreover, there is a substantial amount of literature examining high school dropout that identifies grade retention as a predictor variable (Alexander et al., 1999; Ensminger & Slusarick, 1992; Grissom & Shepard, 1989; Rumberger, 1987, 1995).

A recent systematic review of seventeen studies examining factors associated with dropping out of high school prior to graduation suggests that grade retention is one of the most powerful predictors of school dropout (Jimerson, Anderson, & Whipple, 2002). Each of the seventeen studies found that grade retention was associated with subsequent school withdrawal. Several of these studies include statistical analyses controlling for many individual and family level variables commonly associated with dropping out (e.g., socio-emotional adjustment, SES, ethnicity, achievement, gender, parental level of education, and parental involvement). This research review revealed the consistent finding that students retained during elementary school are at an elevated risk for dropping out of high school (Jimerson et al., 2002). Research indicates that retained students are between 2 and 11 times more likely to drop out during high school than non-retained students (Alexander et al., 1999; Bachman, Green, & Wirtanen, 1971; Cairns, Cairns, & Neckerman, 1989; Ensminger & Slusarick, 1992; Fine, 1989, 1991; Grissom & Shepard, 1989; Lloyd, 1978; McDill, Natriello, & Pallas, 1986; Nason, 1991; Pallas, 1986; Roderick, 1994, 1995; Rumberger, 1987, 1995; Shepard & Smith, 1989, 1990; Stroup & Robins, 1972; Tuck, 1989). In fact, grade retention has been identified as the single most powerful predictor of dropping out (Rumberger, 1995).

Correlates of High School Dropout

Over five decades of research has revealed several correlates of high school dropout. Prior research has identified various demographic status variables, individual characteristics, psychological and behavioral measures, and family factors associated with withdrawal from high school (Rumberger, 1987, 1995). Demographic factors include low SES, neighborhood-level variables, gender, ethnic minority status, and low parental education (Cairns et al., 1989; Ensminger, Lamkin, & Jacobson, 1996; Fine, 1989; Oakland, 1992; Weis, Farrar, & Petrie, 1989). However, these demographic factors do not address the dropout process. Achievement problems and failing grades continue to be strong correlates (Ekstrom, Goertz, Pollack, & Rock, 1986; Ensminger & Slusarick, 1992; Garnier, Stein, & Jacobs, 1997; Lloyd, 1978), but these factors may simply be early indicators of dropping out rather than involved in causal pathways.

To complete this picture, other studies have identified social and behavioral influences associated with school withdrawal such as behavior problems, poor peer relationships, and family level variables (Cairns & Cairns, 1994; Ensminger & Slusarick, 1992; Garnier et al., 1997; Parker & Asher, 1987). All of these measures have been shown to predict later high school dropout. A limitation to most of these studies is the reliance on survey and/or interview data and few begin in the early years of a child's academic life. Jimerson, Egeland, Sroufe, and Carlson (2000) conducted a prospective longitudinal study of high school dropouts and reported an association between demographic, family, individual, and school performance variables and later high school dropout by age 19. A strength of this study is that these variables were followed throughout the student's development, from infancy through high school.

It should be noted that many of the factors that predict dropout are known to be interrelated. For instance, socio-emotional problems, behavior problems, and low academic achievement are strongly correlated with one another. Thus, disentangling precise causation and connections to later outcomes can be difficult at best. It continues to be important to further examine primary characteristics that have been associated with later school withdrawal.

Socio-emotional Adjustment and Academic Achievement

Socio-emotional adjustment and behaviors at school have consistently been shown to be related to academic achievement and may contribute to a negative achievement trajectory over time. Egeland, Kalkoske, Gottesman, and Erickson (1990) found that children who were classified as acting out or withdrawn in preschool had 1st and 2nd grade achievement scores significantly below those of same grade children rated as competent. Behavior problems in the classroom have consistently been found to be negatively correlated with verbal ability and reading readiness (Richman, Stevenson, & Graham, 1982). Furthermore, reading problems and antisocial behaviors often co-occur during the early years of schooling (Hinshaw, 1992; Loeber, 1990).

Rutter, Tizard, and Whitmore's (1970) study suggested that even with IQ held constant, low reading skills were more common in conduct-disordered children than in children who displayed no behavioral difficulties. In another examination, Horn and Packard (1985) conducted a meta-analysis of factors related to learning problems and found that impulse control and internalizing behavior problems measured in kindergarten or 1st grade were as effective at predicting later academic achievement as were intellectual ability and language variables. Ledingham and Schwartzman (1984) found an increased risk for grade retention and special education placement amongst primary grade children who displayed aggressive behaviors. In a longitudinal achievement study, Jimerson, Egeland, and Teo (1999) reported that socio-emotional and behavior problems accounted for negative trends in achievement trajectories, even when controlling for previous levels of achievement. Overall, the confluence of the available research literature indicates that poor socio-emotional adjustment and conduct-disordered behaviors are associated with past, present, and future achievement trajectories (Hinshaw, 1992; Martin & Hoffman, 1990).

A Transactional-Ecological Developmental Framework

It is helpful to consider developmental trajectories utilizing a transactional-ecological model, as emerging research suggests that high school dropout is best understood as a developmental process (Jimerson et al., 2000). The transactional-ecological model of development places an emphasis on the bidirectionality between individuals and their multiple environments or ecological contexts (Nastasi, 1998) across time (Sameroff & Chandler, 1975). The primary focus of the transactional model is the contact between the individual and the environment, whereby multilevel ecological systems (micro, meso, exo, and macro) interact to influence student dropout behavior (Bronfenbrenner, 1979). These transactions are altered by one another, each subsequently influencing other interactions in an ongoing and continuous fashion (Jimerson et al., 2000). As such, from this perspective, behavior is considered a product of the individual's past and current circumstances, ecological contexts, and previous developmental history (Sameroff, 1992; Sroufe, Egeland, & Carlson, 1999). Accordingly, interventions designed to influence dropout behavior can occur at any or all of the multiple systems levels in transactions to effect change in the individual student's behavior.

A wealth of previous retention research has found multiple variables within a child's developmental history that contribute to an increase in the likelihood that she or he will be retained in elementary school (e.g., parental level of education, parental involvement with school, poorer peer acceptance, more problem behaviors; see Jimerson et al., 1997 for further information).

Thus, it is important to recognize the interplay between a child's developmental history and school experiences, as well as other ecological contexts (Cairns & Cairns, 1994; Dryfoos, 1990; Evans & DiBenedetto, 1990; Jimerson, 1999; Kirsch, Jungeblut, Jenkins, & Kolstad, 1993; Kronick & Hargis, 1990; Sroufe et al., 1999). It is important to note that this transactional perspective does not suggest that grade retention alone inevitably leads to negative academic outcomes. On the contrary, high school dropout is likely a result of a multiplicity of factors co-occurring throughout development, all of which contribute to an increasingly deleterious trajectory over time. There is a developmental tendency for numerous factors to reinforce the continuation of a pathway that has already been embarked upon (Jimerson et al., 2000; Sameroff & Fiese, 1989; Sroufe, 1997).

It is clear that particular school, family, and individual characteristics are associated with an increased likelihood of grade retention (Jimerson, 1999) and these characteristics will subsequently influence a child's developmental and achievement trajectories. Thus, simply repeating a grade is unlikely to address the combination of factors that contribute to low achievement or socio-emotional adjustment problems, which prompted the decision to retain the student in the first place. Overall, the transactional model of development provides a framework that can aid in the interpretation of achievement, socio-emotional, and behavioral outcomes commonly associated with grade retention. It also serves to emphasize the necessity of effective prevention and early intervention strategies, which should be rooted in a systems perspective that focuses upon multiple factors involved in the dropout process.

The Current Longitudinal Study

It has been established that there is a strong connection between high school dropout and grade retention (Jimerson et al., 2002). This current longitudinal study moves beyond generalities to examine specific behavioral and academic variables of retained students in order to increase our understanding of what places children at risk for later high school dropout. Both retained students and dropouts present a variety of profiles; however, certain early characteristics may increase the possibility that a retained student will drop out. This longitudinal study is the first to explore characteristics associated with those students who are retained and drop out, in contrast to those who are retained and continue on to graduate from high school. While many studies have demonstrated the strong association between grade retention and dropout, no studies to date have examined within-group characteristics of retained students to explore processes that may provide further understanding of this association. This 12-year longitudinal study provides information addressing the following questions:

1. Do family characteristics differentiate which retained students are more likely to drop out? Maternal level of education and value of education will be compared between those retained students who drop out and those who persist during 11th grade.

2. Do socio-emotional and behavioral characteristics differentiate which retained students are

more likely to drop out? Socio-emotional and behavioral adjustment in kindergarten, 2nd grade, and 8th grade will be compared between those retained students who drop out and those who persist during 11th grade.

3. Do achievement characteristics differentiate which retained students are more likely to drop out? Academic achievement in 2nd, 4th, 5th, 7th, 8th, 9th, 10th, and 11th grades will be compared between retained students who drop out and those who persist during 11th grade.

METHODS

Participants

The current study explored factors associated with longitudinal academic and behavioral outcomes of students who were followed from kindergarten through 11th grade. Students who had been retained in kindergarten, 1st, or 2nd grade (n = 58), either through a transitional classroom placement (n = 18) or by traditional early grade retention (n = 40) were included in this study. To reduce between-group confounding effects, 14 students were excluded because they had received special education services prior to 1st grade, had been held out of kindergarten prior to enrollment, were of minority status, had transferred into the school district during kindergarten, or had a substantial physical limitation. As reported in previous research, there was no difference between the dropout rates of students retained in a transitional classroom or by traditional grade retention (19% and 20%, respectively) (Jimerson & Ferguson, 2002). Furthermore, previous analyses demonstrate the appropriateness of combining the transitional classroom and traditional grade retention groups (Ferguson, Jimerson, & Dalton, 2001). Attrition due to relocation outside of the school district was 20% through the 8th grade. See Ferguson (1991) and Ferguson and Mueller-Streib (1996) for additional information regarding the research samples.

Measures

Mother's Level of Education and Value of Education. To secure the mother's level of education data, parent surveys were mailed in the Spring of the student's 2nd grade year and again in the 8th grade; there was an 86% response rate. Mother's level of education was rated using a six-point rating scale (i.e., 1-6): "middle/junior high school," "some high school," "high school graduate," "some college," "college graduate," or "graduate school." A "value of education" Likert-like rating scale (i.e., 1-7) was also secured measuring the value that mothers attached to education (i.e., "How important is education for your child's future?").

Socio-emotional and Behavioral Adjustment. Teacher ratings provided information regarding kindergarten students' aggression and personal-social functioning using the Kindergarten-Personal-Social Functioning scale (K-PSF). The 2nd grade teachers were asked to rate, "Does this child exhibit 'aggressive' physical or verbal behaviors?" on a scale of "No," "Some," or "Yes" (scored as 0, 1, or 2, respectively). An additional measure of socio-emotional and behavioral adjustment was a "Teacher Rating Scale" (Ferguson et al., 2001), which was comprised of six items (Social Skills, Performance, Engagement, Success, Self-Esteem, and Attentiveness) utilizing a 1-9 rating scale (very poor skills to extremely high skills). The composite of this rating was called Total Teacher Rating (TTR) and was measured in the Spring of 2nd grade. An example of one of the "Success" items is, "experiences success in classroom academics." An example of one of the "Self-Esteem" items is, "expresses self-confidence and self-assuredness." In 2nd grade, a combination score was compiled utilizing measures of aggression, counseling referral (dichotomous), and special education referral (dichotomous). Aggression was examined by asking 2nd grade teachers to rate, "Does this child exhibit 'aggressive' physical or verbal behaviors?" on a scale of "No, Some, Yes" (scored as 0, 1 or 2, respectively). In the 8th grade, multiple core teachers were asked the same question regarding the student's aggressive behaviors as was recorded in the 2nd grade. The mean from the multiple teachers' ratings was utilized in the current analyses. Teachers' ratings of kindergarten personal-social functioning levels were used as a covariate in the aggression analyses. "Needs additional work" endorsements on the three "personal-social functioning" items ("I handle problems and frustrations in acceptable ways," "I have a positive self-image," and "I cooperate with others") were tallied from semester and year-end kindergarten report cards to construct a variable with a possible high score of six. This index reflects students' kindergarten personal-social functioning, with higher scores indicating a deficit in personal-social functioning (K-PSF), as rated by teachers.

Achievement. Academic achievement was assessed at various grade levels with a combination of measurements throughout this longitudinal study. The Science Research Associates' (SRA) Survey of Basic Skills Series Test was administered in the 2nd and 5th grades. This is a norm-based test that is group administered to the students. The Stanford Achievement Test, 8th Edition (SAT) was administered in the 8th grade. National percentile rankings on the achievement composite scores were utilized for this study. Composite grade point averages (GPAs) were calculated using 7th , 8th, 9th, and 10th grade fourth quarter marks. The Armed Services Vocational Aptitude Battery (ASVAB) was administered in 11th grade; this study used the Academic Ability Composite from the ASVAB. Scores from the 2nd grade SRA were used as a covariate in the achievement analyses in order to control for prior achievement.

High School Status. High school status was determined in 11th grade by examining the student's enrollment records. Each student was classified as either a dropout or currently enrolled. Dropout status was defined as a retained student who was no longer enrolled in high school and who did not graduate or complete a high school equivalency exam. Overall, among the current sample, 19% of the retained students dropped out of high school by 11th grade, compared to only 2% of the promoted students (Jimerson & Ferguson, 2002).

RESULTS

A series of t-tests were used to examine mean differences between the retained students who dropped out and those who remained enrolled at 11th grade (see Table 1). To control for statistical Type I error (i.e., reporting a significant difference, when in fact there is no significant difference) only results significant at $p < .01$ or $p < .001$ are discussed as "significant differences." The findings of this 12-year longitudinal will be presented as they relate to each of the study questions:

1. Do family characteristics differentiate which retained students are more likely to drop out?

Mothers' educational status was found to differ significantly between the two groups, where the retained students who dropped out had mothers who reported lower levels of educational attainment ($t = 2.51, p < .01$). Mothers' value of education was found to differ at $p < .05$. The mothers of retained students who later dropped out had previously reported a lower value of education for their children ($t = 2.34, p < .05$).

Table 1

T-test comparisons of family characteristics, socio-emotional/ behavioral indices, and achievement measures between retained students who stayed in high school and retained students who dropped out.

	Stayed In High School			Dropped Out of High School			
Variable	*M*	*SD*	*n*	*M*	*SD*	*n*	*p*
Family Characteristics							
Mother's level of education	3.64	.83	42	2.50	.76	8	.01
Mother's Value of education	.77	.43	22	.29	.49	7	.05
Socio-emotional/Behavioral							
Kindergarten K-PSF	.38	.96	39	2.00	2.40	9	.001
2nd grade aggression	.21	.36	47	.50	.54	8	.001
2nd grade combination	.41	.65	47	1.13	1.12	8	.001
2nd grade TTR	111.48	25.56	34	88.14	35.17	7	.01
2nd grade TTR self-esteem	19.09	4.26	34	12.00	6.35	7	.001
8th grade aggression	.85	.74	46	1.44	.73	9	.05
Achievement							
2nd grade SRA composite	71.00	21.40	44	59.00	24.27	8	.20
5th grade SRA composite	65.00	23.64	43	49.00	12.93	6	.20
8th grade SAT composite	49.00	24.00	45	30.00	19.42	5	.40
7th grade GPA	2.95	.86	46	1.46	1.09	9	.001
9th grade GPA	2.77	.90	43	1.28	.93	6	.001
10th grade GPA	2.81	.81	38	1.02	.49	3	.001
11th grade ASVAB	58.13	22.28	32	29.50	10.61	2	.05

Self-esteem from TTR
2nd grade combination is aggression, counseling referral, and special education referral

2. Do socio-emotional and behavioral characteristics differentiate which retained students are more likely to drop out?

Several of the socio-emotional and behavioral measures indicated mean group differences. The kindergarten personal-social functioning (K-PSF) was found to be significant, with the high school dropouts indicating lower personal-social functioning ($F = 10.57, p < .01$). All of the measures of the children at 2nd grade were statistically significant, such that the retained group who dropped out displayed more aggression ($F = 9.69, p < .01$), had lower self-esteem ratings on both the teacher report ($F = 18.04, p < .001$) and the TTR ($F = 6.95, p < .01$), and had higher ratings on the combination score ($F = 11.04, p < .001$), which included measures of aggression, counseling referral, and special education referral. Although not statistically significant at $p < .01$, the retained group who dropped out also continued to display more aggression in later years as measured by teacher report in the 8th grade ($F = 4.72, p < .05$).

3. Do achievement characteristics differentiate which retained students are more likely to drop out?

When examining the achievement variables, no significant differences were apparent during elementary school (grades 2, 4, 5). However, during junior high and high school (grades 7, 9, 10) retained students who remained in school received higher grade point averages than retained students who eventually dropped out ($p < .001$). In addition, although not significant at $p < .01$, the 11th grade ASVAB scores of retained students who remained in school were higher than the retained students who dropped out ($p < .05$).

DISCUSSION

This longitudinal study is the first to examine within-group differences between retained students who stay in high school and retained students who drop out of high school. This is an important contribution to the literature, as it moves beyond identifying general risk factors towards examining specific within-group risk factors of retained students. Ultimately, this may inform and facilitate the design of appropriate prevention and intervention programs that may enhance the socio-emotional adjustment and educational success of students who are at risk for early school failure and grade retention. Within this study, socio-emotional and behavioral characteristics, academic achievement, mother's educational level, and the mother's value of education, were examined in relation to high school dropout among a population of retained students.

The results of these within-group analyses are consistent with the general dropout literature, which indicates that student level variables including lower self-esteem, problematic behavior, and lower academic achievement are associated with an increased risk of dropping out. Supporting the findings of previous research, family level variables such as lower maternal educational attainment and lower maternal value of education also characterized those retained students who later dropped out of high school relative to the retained students who persisted. Within this particular longitudinal study, socio-emotional and behavioral variables at each age were consistently associated with dropping out. The measures of academic achievement during elementary school did not differentiate future dropouts from those who persisted. However, in junior high and continuing through high school, the retained students who dropped out demonstrated lower grade point averages. Considering a developmental transactional framework, these results highlight the need to attend to indicators of low self-esteem and aggressive behaviors early in a child's life to promote later academic success while preventing deleterious outcomes such as high school dropout.

Continuing this thread of early identification, prevention, and intervention, it may be useful to interpret the findings through a transactional-ecological lens. This study and others (e.g., Jimerson et al., 2000) indicate that early measurable factors and behaviors are highly associated with later high school dropout. The transactional-ecological developmental model views this early developmental history as an important influence on subsequent development including both socio-emotional adjustment and academic success. Without effective early prevention or intervention programs, the developmental trajectories of children at risk of poor academic performance will likely lead to subsequent academic failure, perhaps even high school dropout. Thus, it is important to consider the confluence of factors that begin early in a child's life. Specifically, low self-esteem and aggression can combine to promote a negative academic trajectory that leads to later school dropout status. Furthermore, the results of this study and others suggest that grade retention is generally ineffective as an intervention to address these early problems, regardless of when the retention occurs. Often grade retention is implemented as an early intervention to provide a "year to grow;" however, research has consistently failed to demonstrate the effectiveness of grade retention in improving either the self-esteem or aggressive behaviors of these students (Hagborg, Masella, Palladino, & Shepardson, 1991; Jimerson, 1999; Jimerson et al., 1997; McCoy & Reynolds, 1999).

Limitations and Future Directions

While this study is the first of its kind, and the longitudinal methodology and prospective research design are advantageous in providing information through high school, there are limitations that should be acknowledged. As with most longitudinal studies of retained students, the sample size is relatively small. Also, regarding statistical analyses, the use of *t*-test analysis to compare groups includes the assumption of "homogeneity of variance" (the variance of groups is similar); however, several of the variables included in this study have considerable differences in the variance between groups [variance may be examined by comparing the standard deviations (*SD*) in Table 1]. In addition, these results should be considered preliminary until subsequent studies replicate these findings or provide further insights regarding the developmental trajectories of children who experience grade retention in elementary school.

The interactions of the individual student with the multiple influences of the school as an institution is an important focus. From a transactional perspective, the school as an organization is a salient part of each student's developmental history. Further research is needed to focus upon how the student's educational experience is affected by the multilayered school culture. "Though the individual attributes matter, their impact cannot be understood without reference to how they relate to the understandings that different students have of events within the institution" (Tinto, 1986, p. 366). The transactional model reminds us to consider how school completion outcomes occur within an ecological context of the school as an institution (Ruddock, 1996).

The transactional-ecological perspective regarding student dropout promotes a focus upon the multiple processes that contribute to school completion outcomes for students. This involves a host of process variables, which prompts many research questions. For example, what processes are relevant to those students who voluntarily drop out of school compared to those who are pushed out by academic failure over time? What ecological and unique individual variables or attributes impact the dropout process? What personal, social, and organizational influences prevent the dropout process? What processes influence those who drop out and subsequently return to school?

CONCLUSIONS

Ultimately, the research is unequivocal in identifying that grade retention does not appear to address the needs of these students at risk of academic failure. Findings from this study should not be misinterpreted as an indication that retention was an effective intervention strategy for the retained students who did not drop out of high school. There is a need for further research comparing the retained students who completed high school with matched comparison groups of similarly low achieving but socially promoted students. This study highlights the association of early socio-emotional and behavioral adjustment and high school dropout among a group of retained students. These findings have direct implications for school psychologists and other educational professionals. In particular, rather than focusing on the unsupported academic intervention of grade retention, it is time to implement prevention and intervention programs that have been empirically demonstrated to meet the needs of these students in facilitating both positive academic success and socio-emotional adjustment.

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Best Practices in Assessing Kindergarten Readiness

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This artile addresses the numerous challenges that have developed in response to the first national education goal that states, "All children in American will start school ready to learn." The definition and measurement of school readiness has been surrounded by controversy for decades. There is little consensus on how it should be defined and even greater uncertainty on how it should be measured. This paper addresses the issues of assessing readiness by reviewing the history, research, and methodological challenges relating to screening instruments for school readiness and then links these data to a best practices model of screening techniques.

Keywords: Preschool, Kindergarten, Assessment, Readiness, Screening Instruments

In the fall of 1989, the President and governors of the 50 states met for the first Education Summit held in nearly 100 years (Meisels, 1998). This meeting established eight "National Education Goals." First among these goals was the following: "All children in America will start school ready to learn" (National Education Goals Panel, 1991). Clearly, this is a lofty and needed goal. However, beyond broad agreement about the importance of readying children (Bracken & Walker, 1997; Gredler, 1992; Lehr, Ysseldyke, & Thurlow, 1987), the readiness waters are murky. There is little consensus on precisely what constitutes this term (Scarpati & Silver, 1999) and even greater confusion on how it should be measured.

This paper addresses the definitional and measurement challenges that plague readiness assessments by reviewing the history, research, and methodological issues relating to screening instruments for school readiness. This research is then linked to a best practices model of screening techniques.

HISTORY OF PRESCHOOL ASSESSMENT

The history of early childhood assessment is not lengthy. Kelley and Surbeck (1991), in an extensive review of this history, identified two periods of high productivity. The first period includes the contribution of Arnold Gesell who created a "developmental schedule" that contained approximately 150 items in four areas: motor development, language development, adaptive behavior, and personal-social behavior. His work, which spanned almost 40 years, influenced and is still influencing the construction of tests for preschool children (Gredler, 1992).

The second period, during the 1960s, was a time of high productivity for early childhood assessment (Kelley & Surbeck, 1991). The funding of the 1964 Child Health and Mental Retardation Act and of the Head Start and Follow Through Programs created a demand for preschool tests for diagnosis, monitoring, and program evaluation (Zigler, 1998). Assessments were designed to measure the variety of domains included in Head Start instruction (e.g., affective, intellectual, psychomotor, and subject achievement; Zigler & Styfco, 1994).

Over both periods, it is evident that the domains measured by these early assessments were child-centered and paid little attention to contextual variables. As discussed throughout this paper, the implication of this "within child" model is that the burden is placed on the child to be ready for school while

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largely ignoring the influences of family, community, school, and culture on the child's performance. As outlined in the following section, it is evident that this child-focused model continues to be perpetuated in current assessment practices. In addition, the psychometric properties of many of these instruments are alarmingly inadequate.

CURRENT RESEARCH ON EARLY CHILDHOOD ASSESSMENT INSTRUMENTS

Heterogeneity

The research on current early childhood assessments illustrates further the myriad of problems surrounding these instruments (Bracken, 1987; Lehr, et al., 1987; Thurlow & Ysseldyke, 1979). Two surveys, in New York and Michigan (as reported in Bagnato & Neisworth, 1994), provide insight into the range of instruments used for screening purposes. In the New York study, 177 school districts were polled to identify the instruments currently being used in their pre-kindergarten screening procedures. It was found that 151 separate tests or assessment instruments were reported in use. In the Michigan study, 111 different tests were in use in the state public schools. These studies suggest that the use of locally developed instruments may account for a large number of the measures found in these surveys, and that there is little consensus on how kindergarten readiness should be defined or measured (Bagnato & Neisworth, 1994).

Technical inadequacy

Many researchers report that few individual screening measures have the technical adequacy necessary for early identification (Lehr, et al., 1987; Mercer, Algozzine, & Trifiletti, 1979; Thurlow & Ysseldyke, 1979). In 1979, Thurlow and Ysseldyke evaluated the validity, reliability, and norms of the most frequently used tests in federally funded Child Service Demonstration Centers (CSDC) and found that only seven of the 28 tests reviewed were technically adequate in all psychometric properties. A similar analysis by Lehr, Ysseldyke, and Thurlow (1987) using the Handicapped Children's Early Education Program demonstration projects revealed that among the 19 most commonly used devices, only three (Vineland, McCarty, and K-ABC) were technically adequate. The criteria used to define "adequate" were compiled from several sources, including the *Standards for Educational and Psychological Tests, and Assessment in Special and Remedial Education* (Lehr et al., 1987).

Tests of cognitive abilities. In a similar study, Bracken (1987) analyzed the 10 most commonly used early childhood instruments (five used for educational placement decisions, and five used to assess specific skills and/or abilities). The technical adequacy of these instruments was evaluated through various indexes of reliability (median subtest reliability, total test internal consistency, and total test stability coefficients), subtest and total test floors, subtest item gradients, and provision of validity information. For each of these areas, Bracken (1987) outlined minimal standards of technical adequacy. He concluded that many of these tests are severely limited in floor, item gradient, and reliability, especially below the age of 4 years.

Examining many of the same psychometric properties as Bracken (1987), Flanagan and Alfonso (1995) sought to determine whether certain technical limitations of previous instruments were improved with the publication of new or recently revised intelligence tests. These authors reviewed the following tests: Wechsler Preschool and Primary Scale of Intelligence – Revised (WPPSI-R); Differential Ability Scale (DAS); Stanford-Binet Intelligence Scale: Fourth Edition (S-B: IV); Woodcock-Johnson Psycho-Educational Battery: Tests of Cognitive Ability (WJ-R: COG), and the Bayley Scales of Infant Development – Second Edition (BSID-II).

Similar to Bracken (1987), Flanagan and Alfonso (1995) found that most of the tests showed some of the same inadequacies at the lower end of the preschool age range. Problems with test floors and item gradients, in particular, continued to be evaluated as weaknesses for children below the age of 4 years. Although test-retest reliabilities reported in the respective test manuals appeared satisfactory, the authors pointed out a number of methodological concerns about the design of these test-retest studies. These include small sample sizes as well as the use of samples that were either not representative of preschoolers, comprised of too broad an age range, and/or included children beyond preschool age.

Flanagan and Alfonso (1995) found two tests, the BSID-II and the WJ-R:COG, to be technically adequate across most criteria below the age of 4 years. Additionally, the technical qualities of these instruments appeared to be superior to those summarized by Bracken. These authors conclude that the technical qualities of the new and recently revised tests for preschoolers have shown improvement.

Tests of behavior and social-emotional functioning. The evaluative studies of Bracken (1987) and Flanagan and Alfonso (1995) were limited to tests of cognitive ability. Bracken, Keith, and Walker (1998) examined the quality of 13 commonly used or newly developed instruments designed to assess preschool behavior and social-emotional functioning. Using the same criteria as Bracken (1987), Bracken et al. (1998) found that the 13 social-emotional, third-party assessment devices had more psychometric limitations than preschool cognitive ability measures. When comparing more recently published instruments to others with older publication dates, it was found that the newer instruments were generally more technically sound. This latter finding parallels the work of Flanagan and Alfonso (1995). Therefore, despite the substantial limitations among existing early childhood instruments, there may be some optimism for improved quality assessment tools developed in the future. However, it is clear that these cognitive, behavioral, and social-emotional assessments focus on the child's abilities rather than viewing their performance in context. Little effort has been made to assess environmental factors that prove tremendously influential in a child's development. In addition, it is evident from the heterogeneity of assessments currently in use that a consistent definition of school readiness remains elusive.

WHAT PSYCHOMETRIC PROPERTIES ARE MOST IMPORTANT IN SCHOOL READINESS ASSESSMENTS?

The research reviewed above outlines numerous problems surrounding the technical adequacy of early screening instruments. When choosing a readiness or screening test, standards for professional test development must be considered [see *Standards for Educational and Psychological Testing;* American Educational Research Association (AERA), American Psychological Association (APA), & National Council on Measurement in Education (NCME), 1999]. Regarding screening tests, the standards state clearly that no such test should be used to make any decision about an individual other than referral for further evaluation. However, most screening programs today seem to have adopted the model that they must identify those youngsters who, if they do not receive special services, are at risk for school failure (Thurlow & Gilman, 1999). Therefore, screening programs have assumed the burden not just of identifying for further assessment those who may have a disability, but also of predicting which children already have a problem that will continue as the child matures. Given this conflict, the issue of predictive validity becomes paramount in choosing a screening test. This next section will review critical methodological issues that school psychologists should address when choosing a screening instrument for young children. Particular attention will be paid to the issues of predictive validity, sensitivity, and specificity.

Predictive Validity

To establish predictive validity, two things are necessary: the number of children identified as at-risk and not at-risk by the test, and some measure of performance indicating those children who performed adequately in school and those who did not (Gredler, 1992).

Several studies have looked at the positive predictive value (percentage of children originally identified as at-risk who later developed problems) of screening measures. Gredler (1992) analyzed 12 screening measures and found an average positive predictive value of .55 (i.e., 55% of children considered to be at-risk later developed problems). In a similar study, Carran and Scott (1992) found an average positive predictive value of .65 for eight screening measures. These results indicate that screening measures are better at predicting student success than failure. However, this proves problematic because school districts "act mainly on the number of children who are classified as 'at risk'" (Gredler, 1997, p. 102).

Very few studies have analyzed the predictive validity of preschool screening on placement decisions (Thurlow & Gilman, 1999). In one of the few studies conducted (Kochanek & Hennen, 1988), preschool screening data obtained in the spring prior to kindergarten entrance predicted special education need two years later. However, it is unknown whether the same outcome would be realized if the screening had been conducted earlier (thus allowing time for service provision). It is clear that much less attention has been paid to the efficacy of preschool screening than to the efficacy of early intervention (Lichtenstein & Ireton, 1991; Thurlow & Gilman, 1999).

Sensitivity and Specificity

The desirable outcomes of preschool screening reflect sensitivity (referring to the proportion of children who actually performed poorly who also were originally selected by the screening measure) and specificity (referring to the proportion of children who performed satisfactorily who were originally considered not at-risk by the screening test) (Lichtenstein & Ireton, 1984; Gredler, 1992, 1997). Sensitivity is a major concern for school psychologists conducting readiness assessments because it reflects the extent to which further testing will be given to only those needing it.

Stevenson, Parker, Wilkinson, Hegion, and Fish (1976) analyzed the effectiveness of a prekindergarten battery of cognitive and psychometric tasks and teacher ratings administered in preschool to predict reading and arithmetic achievement in third grade. Results suggest that the index of sensitivity is low. That is, the percentage of poor readers actually found at the end of third grade and who were originally identified by the preschool measures was less than 40%. Similarly, between 56% and 41% of the children predicted to be low achievers performed satisfactorily. When teacher rating scales were used, 85% of the poor readers were not identified (index of sensitivity). Further, only 50% of those children who were earlier identified by the teachers as being at risk subsequently became poor readers. They concluded that more effective prediction could be made from prekindergarten tasks than teacher ratings. After 1st grade, the more effective predictor was derived from scores on prior tests of achievement.

This lack of success is reinforced by the results of the analysis of 33 early identification predictive validity studies by Lichtenstein and Ireton (1984), a comprehensive study by Pianta and McCoy (1997), and in a review of 74 studies by Tramontana, Hooper and Selzer (1988). These authors all conclude that screening measures do a better job at telling us who performed well and was placed correctly than predicting those children who were members of problem groups. These results support the argument that screening measures should not be used to make high-stakes placement decisions such as restricting entry to kindergarten.

Stevenson et al. (1976) further assert that, "batteries of prekindergarten tasks can be used only cautiously in identifying children who need help" (p. 398). These authors conclude that the most reasonable use of predictive measures, such as psychometric screening batteries and teacher ratings, is to identify children who should be considered for further observation and evaluation rather than using the results for assigning children to special groups or classes.

In summary, predictive validity, sensitivity and specificity are key issues in preschool assessments and screenings. Because predictive validity requires longitudinal tracking of children or large retrospective data analyses over time, it has often been ignored. Until these methodological issues are overcome, it remains crucial for school psychologists to avoid the use of these measures for labeling and placement decisions. What follows is a summary of additional methodological issues that should be reviewed when deciding on readiness assessments.

Reliability, Test Floors, and Item Gradients

Utilizing the Standards for Educational and Psychological Testing (AERA, APA, & NCME, 1999), it is evident that reliability, test floors, and item gradients are additional key methodological issues that need to be addressed for educational and psychological testing. These issues will be reviewed and addressed as they relate to readiness screening.

Reliability of a test refers to the degree to which a child's score is consistent (internal consistency) and stable (test-retest reliability) across time (Jacob-Timm & Hartshorne, 1998). Of particular interest to school psychologists is the issue of stability or the degree to which a preschooler's cognitive test scores are likely to be similar from one measurement to the next. Tests with low reliability produce proportionately large portions of subtest and composite variability that are due to measurement error rather than true differences in the construct (Bracken, 2000). Adequate internal consistency for subtest and total test scores allows the school psychologist to assume that the items that comprise the test are highly related and measure a similar domain of behavior. During the assessment process, this permits a more concise and clear interpretation of test scores (Flanagan & Alfonso, 1995).

Another dimension of technical adequacy involves test floors. The floor of a test is an indication of the extent to which an instrument provides meaningful scores at very low levels of individual functioning. In instances when a poor floor exists, scores may become inappropriately inflated and, consequently, provide misleading information (Bracken & Walker, 1997). This potential shortcoming is particularly salient for preschool and kindergarten children because many assessment cases have the goal of determining developmental delay based on a significant discrepancy between the referred child's performance and that of same-age peers. Ceilings are not generally as relevant among early childhood tests as are test floors because screening measures are used to predict failure rather than degrees of success. It is easier to develop suitable items for assessing the upper limits of young children's abilities than it is to create items that discriminate between the lower limits of ability at this age (Bracken, 1987).

Item gradients are an additional technical quality that is crucial in early childhood assessment. An item gradient refers to "how rapidly standard scores increase as a function of a child's success or failure on a single test item" (Bracken, 1987, p. 322). Ideally, the incremental change in standard scores that results from one raw score unit to another should produce a comparable small standard score increase. Unfortunately, early childhood tests are notorious for having steep item gradients, with correspondingly large standard score changes associated with minor increases or decreases in raw scores (Bracken, 1987). Bracken and Walker (1997) note that an acceptable item gradient requires a sufficient number of nonredundant test items placed throughout the test.

BEST PRACTICES MODEL

The national goal of having all children ready for school, the effectiveness of early intervention and prevention programs, and legal mandates requiring services to preschool children with disabilities have forced school psychologists to examine their assessment practices as they relate to the accuracy of identification and the utility of assessment findings for treatment planning and evaluation. However, research indicates numerous methodological problems surrounding preschool assessments. This paper suggests that such historical problems of child-focused assessments and methodological inadequacies continue to be perpetuated in current practice. In devising a best practices model for early screening projects, four suggestions are offered: (a) defining the intended purpose of the assessment, (b) selecting ecologically focused instruments with multiple raters and follow-up procedures, (c) determining the process for conducting the assessment, and (d) thinking carefully about how to analyze, interpret, and use the results.

Define the Intended Purpose of the Assessment

A recent Child Trends Research Brief, "School Readiness: Helping Communities Get Children Ready for School and Schools Ready for Children," summarizes recommendations from the National Education Goals Panel (NEGP) related to assessing school readiness. These recommendations stress that assessments should be used only for their intended purposes. For example, assessments designed to track achievement at the school district level need to differ from the tests used to identify learning problems in a particular child. Screening should be viewed as a first step in assessing the needs of a child, not the first step in labeling them for school failure (Pianta & McCoy, 1997; Rafoth, 1997; Shepard, 1997; Tramontana, Hooper, & Selzer, 1988).

Select the Instrument

Recent scholars are advocating the use of an ecological model to guide the assessment of kindergarten children (Vazquez-Nuttall, Nuttall, & Hampel, 1999). This model stems from research asserting that family background factors have been found to be very useful in predicting school achievement. Particularly for lower socioeconomic groups, such factors as parent education for mothers and family income for fathers have been found to influence home environment, cognitive development, and school readiness (O'Brien, 1996).

Ecologically focused. Vazquez-Nuttall and Nuttall (1999) propose an ecologically based assessment approach that has been greatly influenced by the work of Bronfenbrenner (1976; see Figure 1). As evident from this figure, the innermost circle, which addresses the individual child, has been the primary focus of screening procedures. This represents only one-fifth of the model. It is clear from this "ecomap" that current assessment procedures have unfairly weighted these child-focused domains while largely ignoring family, agency, and cultural influences on a child's performance.

This ecological model offers a comprehensive guide to the assessment and intervention of children. It includes different settings, factors, agencies, and people that need to be considered when designing a reliable, valid, and useful evaluation and service plan (Nuttall, Nuttall-Vazquez, & Hampel, 1999). This type of model recognizes the instability of the very traits most instruments seek to measure as a result of developmental bursts and inconsistencies that defy normative charts. As a result, less emphasis is placed on inappropriate and methodologically unsound assessments and more attention is paid to what parents, teachers and researchers are telling us about these children.

Determine the Process for Conducting the Assessment

The process of conducting the assessment is as important as the assessment itself. Methodological problems that plague these assessments indicate clearly that results may not be reliable. Further, in keeping with the emerging ecological definitions of readiness, assessments should include multiple sources of information over multiple settings. Using single measures restricts the utility of screening programs by failing to recognize the degree to which aspects of school functioning can be interrelated and differentiated (Pianta & McCoy, 1997).

Multiple raters. Meisels (1993) has developed a practical assessment utilizing many of these best practices suggestions. Termed "The Work Sampling System," (Meisels, 1992) this approach hinges on teacher observation, uses checklists to increase the reliability of observations, and gathers samples of

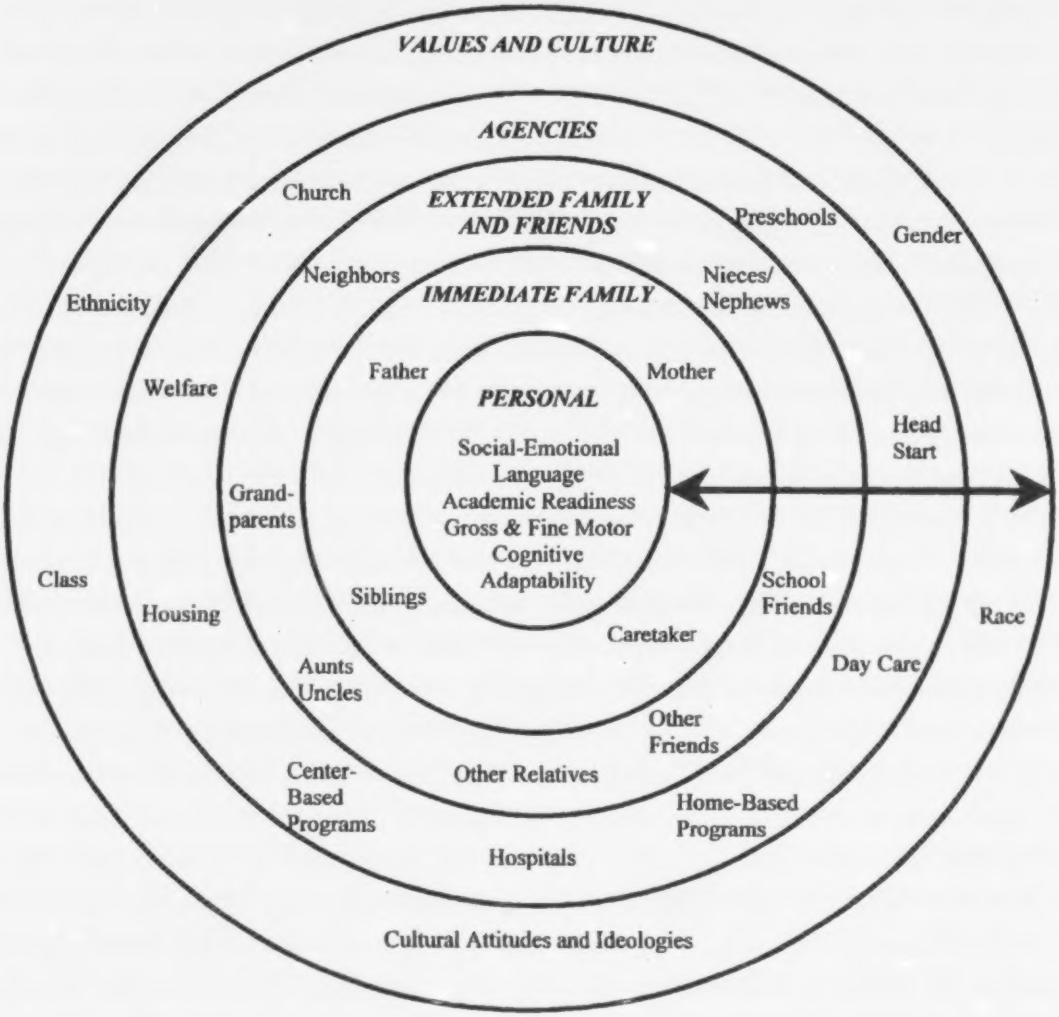
VALUES AND CULTURE
AGENCIES
EXTENDED FAMILY AND FRIENDS
IMMEDIATE FAMILY
PERSONAL
Social-Emotional
Language
Academic Readiness
Gross & Fine Motor
Cognitive
Adaptability
Father
Mother
Siblings
Caretaker
Church
Preschools
Gender
Neighbors
Nieces/ Nephews
Ethnicity
Welfare
Head Start
Grand-parents
Class
Housing
School Friends
Race
Aunts Uncles
Day Care
Other Friends
Center-Based Programs
Other Relatives
Home-Based Programs
Hospitals
Cultural Attitudes and Ideologies

Figure 1.
The ecomap of child and family functioning. Adapted from Nuttall, Nuttall-Vazquez, and Hampel (1999).

children's work to gauge performance. This system is a performance assessment system that offers an alternative to standardized tests with young children. Six checklists cover personal/social development, language and literacy, mathematical thinking, scientific thinking, social studies, art and music, and physical development. This system provides information in a contextualized format quite different from the setting of large screenings where children typically move from station to station in a large auditorium. Therefore, results are more valid and predictive of future performance (Meisels, 1995). Parents are also part of the assessment process and contribute developmental information and their perceptions of their child's progress. Meisels has found the information gathered through the Work Sampling System can be aggregated and analyzed and shows strong reliability and predictive validity (Meisels, 1993).

Multiple gates. As part of the best practices model, it is essential that children judged as "at-risk" as a result of such a screening receive appropriate follow-up evaluation. This is especially true when screening has typically involved the administration of only one test that is not part of a more ecologically based assessment. Good screening programs should be structured in a way that specific follow-up evaluations (which may include more in-depth parent interviews, teacher observations, etc.) are mandated at specific points or "gates" in the process (Rafoth, 1997; Walker et al., 1988). As described by Walker et al. (1988), multiple gating is a procedure that contains a series of three progressively more precise assessments, or "gates," that (a) provide for the sequential assessment and cross-validation of multimethod forms of child assessment, and (b) establish a decision-making structure for the aggregation of information produced by different assessment sources. The procedure relies on teacher judgment of pupil behavior in the first two assessment stages. In stage three, observational data are recorded through direct observation and free play settings by a school professional other than the teacher (school psychologist, counselor, resource teacher, etc.). Play-based assessment procedures are receiving increasing attention as a critical part of this best practices model (for a review, see Athanasiou, 2000). These types of ecologically focused, multi-rated and follow-up procedures tackle some of the capacity challenges that exist with district wide screenings.

Think Carefully about how to Analyze, Interpret and Use the Results

Along with considering ecological factors at numerous points, school readiness measures should be used to drive planning, not placement decisions. Due to the bursts and spurts in development, results must be considered flexibly along with multiple sources of information about the child. Such techniques will help to reduce errors that can result from unstandardized instruments or brief encounters with the student.

In summary, the following checklist can be used by school psychologists to develop a best practices approach to school readiness assessment:

- ☐ *Technical adequacy* – review the predictive validity, sensitivity, specificity, reliability, test floors, and item gradients before choosing an assessment.
- ☐ *Multiple sources* – include information on the child, family attributes, strengths, and context.
- ☐ *Multiple raters* – gather information from family members, teachers, and other significant individuals in the child's life.
- ☐ *Multiple gates* – due to significant variations in child developmental pathways as well as ongoing changes in family status, children should be screened on multiple occasions over time.
- ☐ *Families as partners* – include families not only in the information gathering stage, but also as key members of the decision-making team.

- ☐ *Cultural sensitivity* – engender a holistic perspective and attempt to understand disability, resiliency, and vulnerability in the context of broader socioeconomic, religious, and cultural systems.
- ☐ *Coordination* – help families link up with additional community-based services and programs. In this sense, readiness assessment should be viewed as the initial step in service provision.
- ☐ *Multivariate decision making* – no single condition, risk factor, or protective factor leads irrevocably to a predictable outcome. Therefore, screening models must allow for these multiple sources of evidence to assume different weights in decision making over time.

CONCLUSION

In conclusion, what has emerged from this research isn't a clear picture of model instruments but rather a model process that begins with the end in mind and incorporates contextual variables at different points. As kindergarten screening has built up a history, it has become increasingly obvious that environmental factors are missing from the picture. By defining the intended purpose of the assessment, selecting ecologically focused instruments with multiple raters and follow-up procedures, determining the process for conducting the assessment, and thinking carefully about how to analyze, interpret, and use the results, screening procedures have the best chance of identifying and appropriately serving children in need.

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Using a Formative Program Portfolio to Enhance Graduate School Psychology Programs

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This article examines the implementation of a program portfolio in a graduate program in school psychology. This effort had two broad goals: (a) to diversify the assessment of student outcomes and (b) to enhance students' ability to reflect on their graduate professional education and how their experiences, both intellectual and practical, have shaped their professional evolution. The portfolio process described in this article was influenced by the work of Donald Schön on the reflective practitioner and the notion that professional knowledge and practice is enhanced by making what is tacit, explicit. Connecting students with the broader standards of the profession and guiding them in the selection of supporting documentation related to these standards were major concerns in developing the assessment model described. Incorporating the standards set by the National Association of School Psychologists (NASP), the program portfolio was designed to facilitate this process of reflective professional development. Ultimately, the portfolio served to strengthen the graduate program while developing students' higher level thinking skills and critical evaluation of their skill development. Student response to the process is incorporated in the discussion.

Key Words: Portfolio, Formative assessment, Graduate school, Reflection, Evaluation

Faculty in the Chapman University School of Education began a process of reflection and renewal in the graduate program in school psychology in 1997. The goals of this process were broad and included strengthening admission standards, modernizing the curriculum, expanding fieldwork requirements, and creating a more comprehensive system of student assessment. A key component of this renewal centered on the program's assessment practices, with faculty determining that program assessment should have three characteristics: (a) multiple measures of assessment, (b) a focus on a cohesive set of professional competencies, and (c) support the School of Education's mission to prepare inquiring and reflective practitioners. As faculty worked to create a more comprehensive system of assessment, the concept of a program portfolio began to take shape. This article focuses on three issues surrounding the decision to institute a program portfolio in order to expand understanding of program and student assessment: (a) the process used to implement such an assessment tool, (b) the student reaction to and involvement in the process, and (c) the discovery that a program portfolio can be a dynamic document—an assessment tool that is *both* a learning process *and* an evaluation product benefiting both students and the program.

The most successful school psychologists do not simply possess more knowledge or use more techniques than their colleagues. Knowledge and techniques gained through education or experience are necessary but not sufficient for good practice in the complex and demanding environments faced by school practitioners. Effective school psychologists use their knowledge in creative ways that respond effectively to the unique demands of a particular situation. In other words, they improvise. It is

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critical that those who educate school psychologists understand how the quality of effective improvisation or what Donald Schön (1987) calls "reflection-in-action" can be encouraged in school psychology educators and students. Reflection begins with puzzlement over the complexities of the situation that presents itself. School psychologists are continually presented with complex and ambiguous situations. As Schön writes, "Stimulated by surprise, they turn thought back on action and the knowing which is implicit in action" (p. 50). This reflection in action is bounded by what Schön calls the "action-present" (p. 62). An action-present may take place over a matter of seconds or minutes but may also encompass months or even years, depending on the duration and pace of the practice. Reflection on practices of shorter duration can be developed through the use of role plays, case discussions, simulations, and asking students to explain what they are doing and why. A program portfolio is a way of encouraging reflection over a much longer period of practice. This longer-term reflection allows students to make explicit the tacit understandings they have developed over the course of a graduate program.

THE STATUS QUO: STATIC ASSESSMENT

Prior to implementation of the program portfolio, school psychology students completed a written comprehensive exam in the final semester of their graduate program. During a half-day period, students wrote responses to six questions self-selected from a list of 10 to 12 questions. For several reasons the faculty found this assessment process unsatisfactory. The comprehensive exam seemed to tap a skill—regurgitating knowledge about a limited number of questions under pressure of time—of little practical value in assessing the competency of students or the effectiveness of a program. Students also completed an oral exit interview, as required by the State of California for all credential candidates. The questions used in the oral examination were similar but not the same as those used in the written comprehensive exam. In addition, there were no clear standards for performance in the exit interview, so it was often difficult to communicate to students how they should prepare. Both forms of evaluation were superficial and disconnected from the program goals of educating skilled *and* reflective practitioners.

THE CHANGE PROCESS

From the beginning of the renewal process, portfolio assessment was a common theme. Faculty began by looking at current models of course portfolios as well as program portfolios used in other credential programs in the School of Education. A review of the literature produced many examples of education portfolios in both K-12 and pre-service teacher programs; however, there was little discussion of school psychology portfolios. While portfolios are increasingly a component of education programs, debate regarding their purpose and value continues (Barry & Shannon, 1997; Meadows & Dyal, 1999; Potthoff, Carroll, Anderson, Attivo, & Kear, 1996; Rakow, 1999). Three broad areas of portfolio use have been documented: portfolios used for self-assessment, program assessment, and external assessment (Barnett, 1995); however, discussion about what that assessment would look like and where the focus of control would be were critical questions for the faculty. While examples from teacher education programs proved somewhat useful, the particular needs of school psychology students were not addressed.

Ultimately, discussions lead to the conclusion that while the use of education portfolios expanded in the 1990s (Meadows, Dyal, & Wright, 1998; Morgan, 1999), most assessment remains summative in nature, occurring after a program of instruction has been completed (Murphy, 1997). Questions about assessment as the culmination of the learning cycle lead to the conclusion that assessment controlled solely by the assessors rather than the assessed would be less effective in determining both student growth and program strength. In this vein, Murphy discusses the "post hoc" and competitive nature of many assessment tools: "Advocates of assessment reform question the value of tests that are conducted 'post hoc,' at the end of the learning cycle, and used only to rank students relative to one another" (p.82).

THE NEED FOR PROCESS AND PRODUCT

The change inquiry revealed three core ideas regarding program portfolios. They must be (a) dynamic rather than static, (b) formative rather than summative, and (c) structured in a way that connects them to student course work and the standards of the wider profession of school psychology.

Faculty concluded that portfolios could serve to develop the higher level cognitive skills of metacognition and metacomprehension. Metacognition refers to the knowledge students have of their own thinking process (Brown, 1980). Metacomprehension, a related but subtly different skill, is the ability to be aware of and monitor one's understanding of information (Garbarino, Stott, & the Faculty of the Erickson Institute, 1992). Portfolios can best serve this purpose when they are dynamic and ongoing rather than simply summative; when they are connected to the present lived experience of students (i.e., courses and their work demands) and at the same time help move students beyond these day-to-day coursework demands to gain perspective on the wider professional world that awaits them.

Through discussion and research, a solidified rationale as well as a process for a program portfolio emerged: in creating the portfolio, learners would engage in a process of reflection and self-evaluation. Through the selection of artifacts and writing reflective essays, learners would gain insight into their accomplishments relative to the expectations of the profession and directions for future learning. During the program, the portfolio process could serve as a way for learners and program faculty to assess learning in progress. At the conclusion of the program, the portfolio could help learners and program faculty assess if program goals and objectives had been accomplished. Lastly, portfolios could be shared with persons external to a particular program (e.g., employers, accrediting bodies) to facilitate their understanding of learners' skills and knowledge.

STUDENT REFLECTIONS

To include students in the process, they were interviewed early in the stages of creating a program portfolio as part of a comprehensive system of student assessment. Student input into the entire process proved invaluable and lead faculty to a number of decisions regarding the program portfolio. One area of particular importance involved student feedback regarding a summative portfolio model. Students captured the limitations of a summative portfolio: "If we're just compiling all those papers for whoever is going to 'assess' them, that assessment is about organization, about presentation more than anything else." They expressed other concerns regarding the summative model, "If the portfolio is just a collection of examples of what I learned to present to an employer, I'm just saving everything; it's paperwork management." Their questions about employment use provided a theme of discussion, "Bottom line, who's going to look at any of this? No one has ever asked me for a portfolio" and "They don't have time to look at some three-inch binder in a half-hour interview; they want to listen, to see if we can express ourselves orally."

The student questions prompted further reflection, "What, exactly, would be included in a program portfolio?" Barnett (1995) makes a distinction between two types of evidence that might be included in a portfolio—artifacts and attestations. Artifacts are "the tangible products created as people complete different tasks" (p. 200). Artifacts typically show rather than tell about a learner's competence in a domain or area of skill and knowledge. They might include products created as course assignments or those completed as a natural part of a learner's work or field experiences. Coupled with reflections about what the artifacts evidence, they can be powerful support documents in a portfolio. Attestations, on the other hand, are documents prepared by someone else that validate or witness someone's knowledge or skills. These could include letters of recommendation or formal evaluations by fieldwork supervisors. As the program portfolio took shape, primary importance was given to artifacts coupled with reflections and attestations, a less direct type of evidence, serving a useful although secondary role in terms of the portfolio.

FORMATIVE VS. SUMMATIVE PROGRESS EVALUATION

Rather than serving as a culminating product, however, the program portfolio provides important information about student learning throughout their education. Ideally, students begin thinking about their portfolios the first day of the program, providing them a structure to document their progress and evidence program standards as well as reflect upon their needs and achievements within the program. Student involvement in the assessment, each one determining what best provides evidence of meeting a standard, adds a personal meaning-making component to the assessment component of any program. Students expressed a desire for the formative model even before they were presented with a specific structure. In interviews, students articulated their needs: "The portfolio needs to serve us as opposed to being this presentation for someone else." "It could be a resource for me, a tool for us to use." "Yes, a process of acknowledgement of learning, something concrete you take with you to build upon."

A formative portfolio can be a meaningful assessment tool, especially when it is held to a high standard on its own and designed to enhance and document process as well as serve as a final product. This formative as opposed to summative view of assessment is an important distinction. While summative assessment is designed as an end-point, formative assessment is designed as part of the process, providing an avenue for further reflection and growth (Scriven, 1991). If student learning is at the center of a program, then formative evaluation via portfolio provides students a process with which to organize knowledge, to reflect upon program standards, and to assess their own progress in light of program expectations. However, here again, the tension exists. A paradigm that establishes portfolios as a compilation of "best work," may miss the opportunity for students to reflect upon their practice and encourage them to select the products upon which they received the highest grades. A program portfolio must provide students an opportunity for reflection, an opportunity to discuss areas of challenge and growth as well as success. It must continually go back to the concept of reflection in action, providing an avenue for reflection of work, leading to deeper understanding and action.

Portfolios can provide a dynamic view of assessment, reflecting the idea that learning is more richly and accurately portrayed by multiple evidence collected over time (Wagner, Brock, & Agnew, 1994). But even within the spectrum of those who use portfolio assessment, there is a wide range of use; for example, many assessment models fail to take assessment beyond end-of-the-cycle or prescriptive parameters. In such models, students are given lists of products to include in a portfolio they simply put together at the end of the program. Several models of portfolio assessment keep the locus of control or expectation in the hands of the assessor. In so doing, the portfolio becomes little more than a filing system.

Schools of education throughout the country are working to use portfolio assessment in more meaningful ways. *Using Portfolios to Assess the Performance of School Psychology Graduate Students* (Prus, Maxton, Thomas, & Robinson-Zanartu, 1996), a 1995 survey of 214 school psychology programs, identifies both advantages and disadvantages of program portfolios. Identified advantages included that portfolios facilitated viewing learning over time, helped assess multiple components of the curriculum simultaneously, were seen by students as relevant, and opened dialogue between faculty and students. Some of the disadvantages cited were that portfolios were costly in terms of time and effort, should be cross-validated with other measures, needed to have clear guidelines, and could be challenging for faculty. Both advantages and disadvantages were considered in the portfolio change process.

In an attempt to create a portfolio assessment component that accurately reflects the program standards as well as provides students with a format for their own collection of work samples, reflections upon that work, and ultimate determination of what best reflects their abilities, the Chapman University School Psychology Program (CUSPP) began exploring portfolio as *both* a learning process and assessment tool.

Connection to Standards

The selection of portfolio domains determines the selection of artifacts and communicates the expectations of the program to the student. Although some approaches to portfolio evaluation dictate the selection of specific artifacts, this is overly prescriptive and encourages uniformity rather than creativity. The portfolio should encourage the creation of a personal narrative about identity, knowledge, and practice. Such narratives help students reflect upon who they are as professionals, what they know, and how they can apply knowledge to practice.

The CUSPP structured the domains of the program portfolio around broad standards set by the National Association of School Psychologists (NASP) in 1994. These broad standards provide students with clarity about program expectations and connects the program to the concerns and interests of the broader profession. One student points out this relationship between standards and the larger professional arena connection in the portfolio introduction: "I have subdivided my work as each piece reflects my learning and experiences in one of the eight domains identified by the National Association of School Psychologists."

Linkage to Program Course Work

Each portfolio domain is linked to one or more courses in the program. The courses provide knowledge and experiences that learners use in formulating their responses to the Portfolio/Exit Interview questions. Course products (papers, projects, etc.) become potential artifacts used to support learners' responses to the Portfolio/Exit Interview questions. A paragraph is included in each course syllabus explaining the relationship of that course to the Program Portfolio. The following example is taken from the syllabus in a course titled, "Introduction to the Ethical Practice of School Psychology:

> Students in "Introduction to the Ethical Practice of School Psychology" should choose one or more of their assignments as artifacts for their program portfolios. Instructors should structure at least one substantive assignment with this in mind. The focus of "Introduction to the Ethical Practice of School Psychology" should be on the portfolio domain of Professional School Psychology and could include projects related to such topics as (a) history and foundations of school psychology, (b) legal and ethical issues, (c) professional issues and standards, (d) alternative models for the delivery of school psychological services, (e) emergent technologies, and (f) roles and functions of the school psychologist. Artifacts can take many forms but should assist students to support the assertion that they are competent in that domain or area.

PORTFOLIO QUESTIONS

The State of California requires that all candidates for a teaching or specialist credential pass an Exit Interview. Rather than have two disconnected assessment procedures, the program combined the Program Portfolio and the Exit Interview into one evaluative process. Each of the portfolio domains has a corresponding series of questions:

Professional Portfolio and Exit Interview Guidelines Corresponding to Portfolio Domain—Psychological Foundations

The domain of Psychological Foundations includes such topics as biological bases of behavior (e.g., biological bases of development, neuropsychology, physiological psychology, and psychopharamacology), human learning, social and cultural bases of behavior (e.g., cross-cultural studies, social development, social and cultural diversity, and social psychology), child and adolescent development, and individual differences (e.g., human exceptionalities, developmental and psychopathology).

Guiding Questions

1. You have been asked to consult with a sixth-grade teacher who is concerned about a student in her class who has problems paying attention during instruction. What theories or principles of learning would guide your questions or suggestions?

2. What academic programs or system level interventions have proven most helpful with students who come from economically disadvantaged households? What factors or program components do these programs have in common?

3. Other than income and English language proficiency, what home or family factors seem to have the most influence on student learning?

4. Juan is a first-grade student who moved to the United States from Mexico a month ago. He speaks almost no English. Describe the course of his language development over the next few years. How long might it take him to develop CALPS? How long might it take him to develop BICS? How long might it take him to develop academic proficiency in English? What factors might influence the rate and trajectory of his acquisition of English as a second language?

5. What are the implications of sociocultural, demographic, and lifestyle diversity to the profession of School Psychology?

6. What developmental issues are important to keep in mind when working with a 7-year-old second-grade student? What developmental issues would be important when working with a 16-year-old high school student?

7. What are some empirically validated treatments for a common social and emotional problem such as depression, ADHD, and eating disorders?

8. Describe the federal definition of a learning disability. What are some limitations and critiques of this definition?

9. What signs or symptoms would you look for to make a diagnosis of mental retardation, autism, and depression?

These questions, included in course syllabi, clarify the specifics of the domain, assisting the student in the selection of artifacts, and form the basis for the Exit Interview. Artifacts may include class assignments or products gathered during fieldwork experiences. For instance, in response to the question, "Describe the federal definition of a learning disability?" students might include a psychoeducational report that describes their diagnosis of a student with a learning disability. The portfolio then supports learners' responses to the questions. Used in this way, the portfolio is a process rather than a product. It becomes a dynamic support for learner inquiry rather than something concrete and fixed.

Culmination of the Process

Organized around the standards of the program, the portfolio process culminates in a product expressive of a student's educational experience and understanding. The candidate must be able to use the language of the profession to reflect upon the artifacts as evidence of each domain. It is structured to allow student choice and voice. The student uses the portfolio to guide and inspire responses in the Exit Interview. It is both a reflection of where the student has been and a tool to help the candidate go forward. It is not an artificial product, a notebook stuffed with pre-determined class assignments; rather, it is personal and dynamic, used to shape responses in an exit interview as well as a marker of progress.

Students who completed the program with the program portfolio as outlined above were able to discuss their understanding of the process, expressing the dichotomy between initial expectations (those of a summative nature)—"in the end you will be required to compile a portfolio," and actual experience (deeply formative)—"There was a theme to my portfolio: diversity, being a change agent, going beyond the role of a school psychologist. I want that to be reflected in my portfolio." Of course, this understanding did not happen overnight. Students struggled with this type of formative assessment, this opportunity to go through a process to gain understanding. Their feedback has been invaluable. A participant said,

> There was uneasiness among the students due to the lack of structure. Students were not used to the idea of having so much say in their own learning. We've always been taught; we will complete what is required. The lack of structure was not something we were used to. A lot of questioning. Often we would ask, "What is it you are looking for?" We wanted direction. You left it open. Ultimately, it is our decision what to include, what will reflect our own experiences.

Prior to using portfolios, student conceptualizations of a final product were well established. They asked for the "list" of requirements and were prepared to compile this list and be done with it. The idea of actually seeing the portfolio as a process for learning was another matter: "I thought this was going to be a weekend thing where I was going to put all the pieces where they fit; kind of like a puzzle. But it doesn't suffice to do that. You find out what you need to tie it all together. Not an end product but something cohesive." The students' understanding of a portfolio evolved as they participated in the process.

When asked about the transition from initial concept to a deeper appreciation of the program portfolio, one student said,

> It was not a matter of grabbing what I needed to reflect this competency or that. It was harder than I thought because I had to evaluate the project, evaluating how my work most accurately reflected a competency. There was a linkage between a variety of projects and the competency. It started to come together. In hindsight, those projects were much more representative of a certain competency than just a requirement to complete the course and receive a grade. It was a continual process of coming back, a coming back to look at it.

The formative nature of this kind of portfolio assessment allowed the students to reflect, to organize their knowledge and assess their own progress. It was the student choice that most drove the reflection process:

> A much more complex task than placing the pieces where they belong. What went into the portfolio was always my choice as to what reflected a competency. It was always my decision. It's an individual's portfolio. No two portfolios are going to be similar. A true reflection of my own experience.

BEYOND THE CLASSROOM

This reflection led beyond the boundaries of the graduate school classroom, as it became more the students' self-narrative rather than a narrative about the content of course work. In a reflection, one student writes in the 'Psychological Foundations' section of the portfolio, "I have included a paper on working with Hispanic American families. This paper was written to present at a district in-service on cultural diversity and understanding the needs of minority families." One of the most exciting outcomes of the portfolio as both a process and product experience was the realization that students discovered themes in their own work, themes that connected learning from course to course. One student said, "As I was putting together my portfolio, it became apparent to me that the projects were not just the end requirement of a course but were a reflection of what I was interested in and represented an overall theme."

It is in the discovery of themes that students have gone to another level in their thinking of themselves as professionals:

> It was looking at my work, describing what each piece was and describing how it was a reflection of my experience in the program. It was looking at how I could continue to learn in the areas I was interested in. It has meaning, it has value to me, and I want to continue reflecting upon what I have reflected in my portfolio.

Having graduated the first group of students with an opportunity to experience the program's portfolio, the duality of the work has been a discovery, for indeed the program portfolio is **both** a learning process and an evaluation product, not an artificial product filled with pre-determined class assignments, but a dynamic document that helps a candidate make meaning of the program and the profession.

CONCLUSION

The process of creating and beginning to implement a program portfolio has itself become an action-present. Based on initial experience with program portfolio and reflection on the process, several changes are under consideration. Initially, students included too many artifacts in their program portfolio, thus limiting some of the reflection involved in being selective of what products to include. To address this, students were advised to limit their selection to no more than three artifacts for each domain. The pressure of increased selectivity enhanced the reflective nature of the process. Faculty also discovered that after three years of intense involvement, understandings shared between students and faculty had become overly tacit, also limiting the reflective quality of the exit interviews. To remedy this, the program began to include community members and faculty from other disciplines in the interviews. Having to discuss artifacts and respond to questions from "outsiders," created an immediate action-present, further enhancing the reflective nature of the portfolio process. Students tended to make the portfolio a default-summative task by waiting until the final moments to select and organize artifacts. In response, the faculty is creating greater awareness in the program, by including more explicit discussions about the portfolio process early in the program, by referencing the portfolio in course syllabi, and by focusing course assignments on the domains.

The experience of the CUSPP's work with portfolio assessment also has implications for others. Reflection on assessment of both students and program is a necessary starting point. Considering the multi-faceted nature of portfolio assessment, determining how a program portfolio might be both formative and summative is a next step. Such discussions lend clarity to the idea of an assessment tool that goes beyond a collection of best works or attestations written by a third party. Talking with faculty and students about Prus's (1996) findings on the advantages and disadvantages of program portfolios as well as the portfolio implementation process in this article will help programs make decisions based on prior knowledge. One ongoing issue is how to communicate this understanding of a program portfolio to students at the outset of the program. Given its reflective quality, this poses a problem with new students who want high levels of structure. While introducing the concept of the program portfolio as students enter the program is desirable, in some ways they are not yet ready grasp the concept. Once the idea of a reflective practitioner is established in various courses, they have a richer understanding of portfolio as both product and process.

As the student voices in this article clearly attest, a dynamic, formative program portfolio is, indeed, a tool that can help students make meaning and gain greater insight into the themes they will develop in their professional experience. But as we work with the concept of a dynamic assessment tool, we are entertaining yet another concept: the portfolio process has benefits beyond education and could be valuable for those already in the field.

The program portfolio described in this article moves us in the direction of informing practitioners who are both knowledgeable and capable of the artistry needed for demands of the day-to-day practice. As the demands of the job increase and the pace accelerates, practitioners find fewer opportunities to reflect on their practice. Most in-service education involves either learning more of the same kind of techniques or making already known techniques more efficient. This has limited potential for professional growth because it keeps school psychologists within old, often implicit, schemas. These schemas can become quite shop worn and lead to dead-end professional corners. Supervision, evaluation, and professional development programs must make reflection an essential component and involve "building new understandings to inform our actions in the situation that is unfolding" (Smith, 2001). Currently there are efforts under way to establish a reflective process of supervision and professional development in a large, urban school district with over 50 psychologists. This process involves a self-assessment of three components: (a) opportunities present to participate in a particular NASP domain, (b) the importance of these activities given the personal interests of practicing psychologists and the needs of their assigned schools, and (c) current competency or level of preparation to pursue opportunities related to that domain. Once this reflective process is completed, practitioners create a plan for professional development that focuses on creating more opportunities and developing competence in chosen areas. All graduate programs in school psychology provide their students with adequate knowledge and techniques. This is, of course, necessary but in and of itself does not prepare psychologists to handle the complexities and ambiguities of professional practice. It is important that school psychologists reflect on their practice in the moment and over the long term so that they can creatively meet the needs of the children, parents, and educators they serve.

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